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A STATE OF NEW ZEALAND REPORT

FOR UN HABITAT III

THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

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Table of Contents

Executive Summary

This State of New Zealand report was produced in the run up to Habitat III. The third bi-decennial United Nations conference on Housing and Sustainable Urban Development is due to take place in October 2016 with the aim of securing 'renewed political commitment for sustainable urban development, assess accomplishments to date, address poverty and identify and address new and emerging challenges' (Resolution 67/216).[1]

The output from Habitat III will be a document called The New Urban Agenda (NUA). Based on the three pillars of sustainability, environmental, social and economic, the aim of this report is to stimulate debate in Aotearoa New Zealand, amongst researchers and academics as well as the wider community, on our urban issues and the future direction we need to take.

The following executive summary has been put together by the editors of the *Habitat III New Zealand* country report. We have highlighted and blended together material from different chapters, and in doing so have heavily summarised some points. The emphasis is on challenges.

Chapter 1 addresses urban demographic issues and challenges.

Key points:

In combination with existing domestic population growth and migration patterns, external migration and property speculation contribute to making urban accommodation less and less affordable. This applies particularly to Auckland. Prospects of increasing urban density challenges traditional aspirations of living in stand-alone houses.

Migration inflows contribute to economic activity, although risk flattering current economic growth indicators, and negatively affecting unskilled and semi-skilled local workers, including Māori. Auckland tends to gain disproportionately from the economic benefits, though with an associated cost of high housing prices and strain on infrastructure. Rapid urban growth is having implications for adjacent rural areas, and is often seen as having negative consequences for rural areas.

There are calls from some to adjust immigration policy to better ensure that high quality and high impact immigrants are admitted. Equally there is evidence indicating immigrants, particularly from Asia, are not being effectively matched up with the labour market, and those with overseas qualifications and experience are not adequately recognised.

[1] UN General Assembly (2012) Implementation of the outcome of the UN Conference on Human Settlements Habitat II and the strengthening of the UN Human Settlements Programme, December 12, http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/67/216

As a bicultural nation that recognises Māori as original inhabitants, the social impact of immigration is complex. This is because immigrant-related multiculturalism may be seen as undermining New Zealand's biculturalism.

Another related issue is addressing increasing poverty, substandard housing, and growing vulnerability of certain groups of urban youth. A separate youth-related issue is the risk of online sexual harm, and the need to both protect the vulnerable while creating stronger legal controls against those sending messages and posting harmful material on line.

For the aged, a balance needs to be struck between recognising the potential economic and productive dimensions of ageing, and concerns about an overly optimistic view of self-reliance, independence and active participation. There is a risk of exposing the most 'frail old' or isolated to further marginalisation. A need to increase central government resourcing and policy input has been identified, with more opportunities for the elderly and their advocates to input into the planning and design of environments and service provision. This needs to be done while addressing the complex needs of an increasingly diverse population group. Some urban centres have initiatives to foster positive ageing and enabling environments, and addressing ways to reduce and prevent social isolation.

Gender inequality and discrimination remain inadequately addressed. Gender Impact Assessments of city plans are not required, and while advisory groups exist for many groups, there are none for women. Survey data is regularly collected without differentiation by gender, or if so, matters relevant to women are not analysed in the reports produced. Definitions and terms in policy and strategic documents are derived from a male perspective. Practical effects of this are exemplified by the word 'safety' which is interpreted differently for men and women.

Challenges for the New Urban Agenda:

- Addressing housing affordability and pressure on urban infrastructure while benefiting economically from migrant and internal migration patterns.
- Better meeting migrant needs and integration into New Zealand.
- Consider options for incentivizing regional population growth, and how to better integrate effective service delivery for both rural and urban sectors.
- Identify more effective ways to ensure New Zealand's children and young people have a voice in decision-making. This includes ensuring access for those with disabilities, Māori and Pasifika, and children of immigrants.
- Identifying ways of reducing the risk of online sexual harassment while recognizing the bulk of online 'sexting' may be considered a positive experience.
- Anticipating and preparing for the increasingly diverse needs of an ageing population. More organisations in the private sector need to consider how to become more adapted to the needs of their older customers.
- Better house and public space design for the elderly is needed, as well as improving access to good paid care and support for families and friends who provide care. There needs to be a variety of inclusive spaces and

opportunities for older people to participate, such as clubs, libraries, men's sheds, and community gardens.
- The influence of gender perspectives remains poorly recognised and addressed, with the need to identify the lived experiences, issues, needs and priorities of all women and men so that they can be reflected in planning policy and practice. There is a need to collect and use gender disaggregated statistics, with a routine use of the Gender Impact Assessment tools and checklists on city plans. There is a particular need to support Mana Wāhine and Women's groups to enable effective engagement in the planning process.

What is unique about New Zealand?

Migrants settling into a bicultural country creates particular opportunities as well as tensions.

Chapter 2 addresses land and urban planning.

Key points:

The need to ensure sustainable urban planning and design is challenged by issues relating to:
- a lack of affordable housing;
- inefficient urban transport systems sitting uncomfortably alongside carbon reduction targets;
- the need to reduce the overall ecological footprint of cities; and
- the need to cope with population increases in larger cities while other centres face declining populations and economies.

A particular issue has been the challenge of the Christchurch earthquakes. Criticism of a lack of stakeholder involvement has been balanced somewhat by the inclusion of local indigenous representation in central and local government decision-making. In addition grassroots transitional initiatives by the local community has successfully brought vitality back to the central city.

Meanwhile, Auckland's City Centre Masterplan and Waterfront Plan have seen positive urban design changes in terms of increased public access and public life to these parts of the city.

Debate remains over how to sustain biophysical resources while leaving land use largely to market mechanisms, with claims that many of the levers available to reduce distortions in land values, such as a capital gains tax, are not being properly considered. Efforts to address unaffordable housing have been ad hoc. There has been a dilution of local government's ability to consider sustainable development. On the other hand, there is greater provision for housing accords between central and local government, and the fast-tracking of development through the planning system.

Equally, a regional council's need to meet biophysically-oriented sustainability requirements may sit uneasily with district council roles. There are also claims that

the planning profession has emphasised apparently value-free technical and facilitative aspects of decision-making at the expense of the transactional concerns around social and economic development, equality and wellbeing that characterised the 1970s and '80s. There are claims that the narrow focus of planning post 1991, with the introduction of the *Resource Management Act*, has led to difficulties addressing economic decline in some regions, and increasing demand for residential housing in the main urban centres.

The inability of New Zealand's planning framework to manage other major urban issues was also highlighted in post-earthquake Canterbury. New legislation was required to enable a recovery process that integrated social, environmental, economic and cultural spheres. It is crucial to be able to quickly gather, analyse, interpret and explain information, especially in an era of large-scale data gathering capacity.

The increasing recognition by local councils and communities of the critical role that food and agriculture play in contributing to the health and wellbeing of urban residents may conflict with coping with growth pressures for cities such as Auckland. Cities have implemented goals and policies to protect productive agricultural land through, for example, establishing urban limits, minimum lot sizes and stricter density controls in the rural zone, or by identifying particular sites of high quality soils as being off limits for development.

Meanwhile, the New Zealand Productivity Commission concludes that attempts to preserve land for agriculture contributes to rising housing costs, while central government wishes to ensure regional and district plans provide adequate development capacity for business and housing. This is likely to contribute to urban sprawl on high-class agricultural land, displacing existing farms and reducing future urban agricultural opportunities.

Ensuring urban mobility is increasingly complicated. Urban growth and increasing traffic congestion, along with freight, airport and seaport traffic, and increasing tourism creates supply pressures, while oil supply and price fluctuations, the impact of emissions on climate change, projected sea level rise, infrastructure integration and digitisation of mobility systems in New Zealand's four largest cities create challenges both in terms of managing increasing demand and taking the best advantage of available technologies.

Some indigenous Māori report exclusion from decision-making in Auckland transport and community planning. Māori are disproportionately exposed to differential mobility challenges.

Challenges for the New Urban Agenda:

- Identifying whether and how to improve New Zealand's planning system related to urban design and land use, and how to address regional development, risk reduction, housing shortages and sprawl. This may require expanding the influence of planning into economic, social and cultural elements, as well as the biophysical. It is necessary to develop

skills to quickly gather, analyse, interpret and explain information, particularly when dealing with large volumes of data.
- Working out how to protect valuable agricultural land while enabling affordable housing.
- Enabling transport to transition to a low carbon network, including using renewable energy and taking advantage of digital infrastructure, while being resilient to disruption and enabling equitable access. On the latter point, there needs to be a greater voice for indigenous Māori in decision-making.
- Improving the ability to plan and manage cities will require a strong understanding of the ethics of the planner's role and purpose of the profession, to enable a range of opinions to be heard about issues such as sustainability and resilience.

What is unique about New Zealand?

A strongly biophysical planning legislation may be contributing to the planning profession becoming too narrowly focused.

Chapter 3 addresses environment and urbanisation.

Key points:

Urban ecology and the ecological footprint of cities were not considered in this section due to limitations on length.

There is no formal statutory integration between urbanisation and greenhouse gas emissions. New Zealand's unusual country emissions profile means a disproportionately high contribution comes from transport.

Central government manages the NZ Emissions Trading Scheme (NZETS), which as currently implemented has little or no influence on transport emissions. Meanwhile, local government has minimal statutory backing to address emissions. Instead, councils are charged with managing the impact of climate change resulting from increasing atmospheric greenhouse gas concentrations.

This creates difficulties when trying to reduce emissions. For examples, New Zealand's largest city, Auckland, has a non-statutory emissions reduction strategy that is divorced from the development planning processes.

Central government and energy retailers are promoting electric vehicles as part of the solution. However, the peculiarities of the power network risks seeing increasing e-vehicle use in Auckland generating increased electricity demand from coal-fired power stations. This also raises equity issues relating to price barriers for e-vehicles, and (as currently formulated in policy) leaves unaddressed the increased commuting and congestion associated with an expanding city. Congestion costs the Auckland economy $1.25 billion per year and contributes 38% of the city's total carbon emissions.

There is technical and best practice guidance for local government from central government on how best to manage the range of climate change impacts. These will include storm surges, coastal groundwater intrusion, and increased flood events in many catchments. Communities may have to adapt or move, with associated high costs, property rights issues, and the potential for legal action. For legal clarity, local government may require more guidance as to whether and how to indicate in the planning process the need to adapt.

Meanwhile there is a need to improve disaster resilience, both in the sense of reducing exposure as well as post-disaster preparedness. Neoliberal government policies and the hollowing out of the state continue to limit access to resources and social protection, weakening livelihoods, and ultimately increasing vulnerability to disasters.

Periodic poor air quality in urban centres has been attributed to a high reliance on an elderly vehicle fleet, traffic congestion, urban sprawl, limited use of public transport and low preference for active commuting, and domestic wood burning. Internal air quality is also compromised by inadequate heating systems exacerbated by New Zealand's poorly insulated homes. Children are disproportionately affected by poor air quality.

Challenges for the New Urban Agenda:

- There is a need for a co-ordinated central and local government strategy to reduce greenhouse gas emissions while managing climate change impacts. A review of the role of market mechanisms such as emissions trading needs to be done in the context of the need for a rapid reduction in emissions relating to urban growth and, in particular, transport.
- In addition, a more imaginative and comprehensive review of the emissions implications of urban growth and development is needed. For example, a distributed energy system using increasing amounts of renewable energy could be used to power electric vehicles. This could be coupled with requiring high-energy efficient buildings to meet increasing demand for accommodation in growing urban environments.
- Realise a goal of doubling public transport use by 2022, and increase walking and cycling.
- Reverse rapidly increasing road traffic congestion while improving the fleet to reduce the impact on local air quality.
- Improve walkability for children going to school and consider restrictions on smoking in vehicles in which children are being transported.
- The need for further research into the cost-effectiveness of retrofitting heating options into rental houses.
- Further integrate top-down and bottom-up actions to enhance disaster risk reduction.

What is unique about New Zealand?

The gains to be made through a process of integrating disaster risk reduction, climate change management, healthy homes programmes and improved urban transport options are arguably greater than other countries.

Chapter 4 addresses urban governance and legislation.

Key points:

Urban authorities can raise revenues for their activities through property rates, investment activities, and various user charges, notably for water and for infrastructure provided to developers. Hence urban governance is characterised by a high degree of decentralisation of authority for planning and provision of infrastructure and urban services. Inefficiencies and ineffectiveness in the provision of some urban services, notably water services and roading, is evident outside Auckland simply because of economies of scale.

Challenges for the New Urban Agenda:

- The importance of developing a shared vision for future urban development across multi-level governance with tangata whenua and given the need for greater intensification of urban living patterns, particularly in larger cities such as Auckland, Wellington and Christchurch.
- Greater efficiency of urban infrastructure and energy use needed to help address global issues such as climate change and its consequences.
- Shortfall of investment particularly for public transport and social housing, and to a lesser extent, infrastructure needed to cater for rapidly growing numbers of tourists in smaller centres.
- Concern that the rights of submission and appeal provided under the RMA, take too long and in practice make it too difficult to rapidly expand housing supply in cities.

What is unique about New Zealand?

To give effect to concepts of partnership arising from the Treaty of Waitangi, local and regional authorities have made arrangements to ensure an iwi input into decision-making.

Chapter 5 addresses the economics of sustainable urbanisation including: municipal and housing finance, support for the creation of jobs and livelihoods and the integration of urban economies and national development policy.

Key Points:

New Zealand has a concentration of economic activity in and around Auckland. The growth of jobs, particularly since the global financial crisis in 2008, has been in the three main urban centres. There is a need to take stock of the likely effects of continued concentration of growth in Auckland and plan for the possibility that growth is not inevitable in all parts of the country nor at the same rate.

Many settlements in rural areas are facing decline and stagnation as a result of vulnerabilities to external economic shocks. There is a need to develop more resilient economies in the small specialised centres which at present are susceptible.

The urban development associated with growth takes place in a national and international context where the Official Cash Rate (OCR), credit policy, Capital Value (CV) and loans all play a part.

Challenges for the New Urban Agenda:

- Finding an appropriate balance between local and central funding sources is key along with a clearer constitutional recognition of the importance of subnational government.
- Access to housing finance needs to be strengthened and improved to reduce the reliance on market led solutions, especially when large numbers of households are depending on social housing.
- Although local or territorial authorities have a large degree of financial independence this does not guarantee that they can raise the amounts needed. However, the rating system has created unresolved grievances with Māori where land is in multiple 'ownership'.
- As other chapters have pointed out, the need for integrated thinking and policy development is critical.

What is unique about New Zealand?

As a result of Treaty Settlements, Māori are increasingly important economic actors and Iwi play a major role in fisheries, forestry and tourism and this will expand with their ownership of other critical infrastructure and assets and their increasing social participation.

Chapter 6 addresses the provision of and access to adequate housing and associated services including water, sanitation, energy and transport.

Key points:

The issues facing New Zealand include: the supply of adequate housing, housing costs and performance. Housing unaffordability both in the owner occupied and rental sectors correlates with overcrowding and is evident in Auckland, and other hotspots including Queenstown and Christchurch. This is an outcome of supply of housing relative to demographic demand as well availability of finance and regular employment. An associated issue is energy poverty – and the ability to heat homes adequately.

Although just 0.8 per cent of the population experiences some form of housing deprivation ranging from homelessness to housing deemed inadequate due to overcrowding, dampness or lack of adequate heating, this represents 40,000 people, three times the population of Queenstown. Those affected are not equally dispersed throughout the country and there are concentrations particularly in South Auckland and post-earthquake Christchurch.

The quality of design and construction is an ongoing challenge. Between 42,000 and 89,000 dwellings have been affected by what has become known as the leaky homes crisis, the legacy of which is still evident as thousands of homes throughout the country still await renovation.

In terms of associated services, drinking water and sanitation, four in five households in New Zealand have a water supply which meets water quality standards although there is real concern that extreme weather events and drought associated with climate change will create increasing challenges.

Transport provides mobility and access to basic services and a lack of transport, means communities cannot access jobs, education and other facilities. Contrast Wellington where there is a concentration of jobs in the compact core with Auckland where it is estimated that only 15 per cent of jobs are accessible by public transport.

Challenges for the New Urban Agenda:

- The chapter demonstrates that New Zealand is experiencing a series of interrelated issues requiring a much better integration of policies for the provision of housing and associated services.
- Although steps have been taken by government at local and national level, the public lacks a sense of confidence that the current demand will be met in a realistic timeframe.

What is unique about New Zealand?

Since most Māori in New Zealand live in urban areas, the demand for culturally appropriate housing to meet the needs of future generations will be ongoing.

Perhaps what will surprise those outside New Zealand is that such a large proportion of the total housing stock is deemed poor when it comes to thermal performance. Up to half of the housing stock is reported as cold or damp and the correlation with health, in particular respiratory illnesses, is evident in the health statistics. The problem is exacerbated by the cost of residential electricity.

Acknowledgements

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We give special thanks to Melanie Milicich, the Research Liaison and Communications Coordinator at the Urban Research Network, for her assistance and passion towards this project; in helping us secure funding, identify authors and reviewers, organise the eSocSci summit and provide technical and moral support along the way. We also thank Rhiannon Davies from eSocSci who provided technical assistance with eSocSci and helped us disseminate weekly e-newsletter articles about the project.

Finally, we would like to thank all the authors and reviewers who volunteered their time to contribute to this report. We acknowledge that each individual contributor may not necessarily agree with everything in the report. We also take this opportunity to thank all those along the way who unofficially contributed to the writing of this report by lending us a listening ear and providing feedback and ideas for the report.

Introduction

This State of New Zealand report was produced in the run up to Habitat III in October 2016 by a group of over 45 researchers and academics in New Zealand. The aim is to stimulate debate in Aotearoa New Zealand amongst researchers and academics as well as the wider community, on our urban issues and the future direction we need to take. The report also aims to initiate discussions about the role of researchers and in particular Universities in achieving the new urban agenda and the way in which professionals need to be educated and trained.

Habitat III is the third bi-decennial United Nations conference on Housing and Sustainable Urban Development to take place in Quito Ecuador, 17- 20 October 2016. The objectives of the conference as set out in resolution 67/126 are "to secure renewed political commitment for sustainable urban development, assess accomplishments to date, address poverty and identify and address new and emerging challenges" (Resolution 67/216).[2]

At the time of the first Habitat Conference in Vancouver in 1976, the population of New Zealand was 3.1 million, of whom over 2.5 million were living in urban areas.[3] Today the population is 4.4 million with 85 per cent urbanised, and due to increase to 5.5 million by 2038, if current projections are correct.[4] New Zealand is not alone. As the world population has been increasing, so too has the percentage of the population living in urban areas. The phenomenon is global. The challenge is to ensure that the urbanisation taking place is sustainable.

The output from Habitat III – A New Urban Agenda

The output from Habitat III will be a document called The New Urban Agenda (NUA), a universal, high level, global collective vision for the future of cities and human settlements. In the public debate at the UN General Assembly held on July 12th 2016 in New York, the agenda was called "ground breaking" by Helen Clark, current Administrator of the United Nations Development Programme and a contender for the Secretary General position.[5] The NUA takes forward the work of Habitat II which took place in Istanbul in 1996. New Zealand's Mayor of Waitakere City Bob Harvey attended Habitat II along with a group from the University of Auckland's School of Architecture, led by Tony Watkins.

The NUA is based on the three pillars of sustainability; environmental, social and economic. Whilst there will be many holding deep green views who may be anxious about the foregrounding of the economic pillar, the NUA seeks a balanced approach which has the potential to achieve maximum buy-in.

[2] UN General Assembly (2012) Implementation of the outcome of the UN Conference on Human Settlements Habitat II and the strengthening of the UN Human Settlements Programme, December 12, http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/67/216

[3] Teara (2016) Urban and Rural Population, http://www.teara.govt.nz/en/graph/25294/urban-and-rural-populations-1891-1976

[4] Statistics NZ (2016) National Population Projections, http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/projections-overview/nat-pop-proj.aspx

[5] Clark, H. (2016) Address at the Global Townhall, https://www.tvnz.co.nz/one-news/new-zealand/helen-clark-gears-up-great-debate-over-uns-top-job

Within the UN system, UN-Habitat will be entrusted to drive the New Urban Agenda. The revised zero draft of the New Urban Agenda will reaffirm the mandate of UN-Habitat to "guide and support the UN systems" wide co-ordination of the cities and human settlements dimensions of the sustainable development goals and in particular Sustainable Development Goal 11 (SDG 11).

Significance for Aotearoa New Zealand as a member of the UN

The New Urban Agenda is a universal document and speaks to small developed countries such as Aotearoa New Zealand with significant indigenous populations. What is significant for Aotearoa New Zealand is that the Draft New Urban Agenda proposes that the Governing Council of UN-Habitat is widened to become universal. This will mean Aotearoa New Zealand can play its part more fully in the decision-making; to speak up for and support similar countries as well as the small island developing states in the Pacific and beyond.

The New Urban Agenda and the 2030 Agenda for Sustainable Development

The New Urban Agenda cannot be separated from the 2030 Agenda for Sustainable Development endorsed at the UN in 2015. The UN Open Working Group agreed to 17 Sustainable Development Goals and 169 targets.[6] They build on the Millennium Development Goals and are different in two key ways. First, they provide an opportunity to respond in an integrated way to urgent global problems, and second, they are universal so all countries are obliged to do something to achieve them.

The OECD Peer Review of New Zealand in 2015 was clear that New Zealand had to "raise the ambition of its policy coherence for sustainable development agenda. This would be in line with the expanded and universal agenda of the Sustainable Development Goals from 2015" (OECD 2015: 15)[7]. The first recommendation was to urge Aotearoa New Zealand to commit to the Sustainable Development Goals, by establishing a "prioritised, medium to long-term agenda to further promote policy coherence in areas with potential development benefit." Sustainable Development Goal 11 aims to make cities and human settlements inclusive, safe, resilient and sustainable.

The New Urban Agenda and the Convention on Climate Change

The New Urban Agenda to be endorsed by Habitat III will also be based on the climate change actions agreed at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP21)[8].

At COP 21, nations agreed to take action to keep global warming to well below 2 degrees centigrade above pre-industrial levels. The preference was, and remains, to drive changes to keep the increase below 1.5 degrees. The United Nation's Sustainable Development Goals build on the Millennium Development Goals (MDGs)

[6] UN (2015) 2030 Agenda for Sustainable Development, 25th September, http://www.undp.org/content/undp/en/home/sdgoverview/post-2015-development-agenda.html
[7] OECD (2015) Peer Review of New Zealand, June 22nd, http://www.oecd.org/newzealand/oecd-development-co-operation-peer-reviews-new-zealand-2015-9789264235588-en.htm
[8] UN (2015) Paris Climate Conference, (COP21), 7-8 December, http://www.cop21paris.org/

and re-emphasise the need to integrate ecological, social, cultural and economic systems and include targets to address poverty, hunger, disease, inequality and want.

Why was the State of New Zealand report produced and who was involved?

During the preparatory phase for Habitat III, all the UN member states were invited to submit national reports before the first preparatory meeting in New York in September 2014[9]. A few did, although Aotearoa New Zealand was not among them despite having signed UN Resolution 66/207 in 2012.[10]
Due to inaction on the part of the New Zealand government a group of researchers from the University of Auckland's Urban Research Network, who had involvement with UNI UN-Habitat, decided to initiate the production of a State of New Zealand report as part of their contribution to the public good. With some modest funding from the Urban Research Network, the enterprise became a national collaboration across a wide range of disciplines involving established researchers, based in Aotearoa New Zealand.

The process undertaken for the production of the report involved identifying and inviting key researchers across the country who had expertise and experience with the issues identified in the UN Habitat III report template. The eSocSci network[11], an online platform connecting social scientists, was used as a tool to connect the researchers nationally and to raise awareness of the project. The report was produced by compiling contributions from researchers who were available and able to voluntarily participate. As a result of this open-forum process, some sections of the report received contributions from multiple authors with varying viewpoints and interests while other sections were contributed by single authors. Due to the voluntary nature of the report there were instances where participation from certain groups could not be achieved to the degree that would have been ideal. For example, there was a shortage of social scientists conversant with Māori-specific issues who were able to contribute to the report. The credibility and validity of the contents of the report were verified through a rigorous technical peer-review by experts followed by an iteration process with the respective authors to address gaps and present accurate well-rounded information.

Ultimately, some 45 researchers were involved over a 6-9 month period either authoring or reviewing material. The majority of contributors are from the University sector, along with a few working in industry. On completion of the draft report, an online summit was held in August 2016, following which the report was finalised.

[9] UN (2013) Resolution 24/14, Decision and resolutions adopted by the Governing Council of the United Nations Human Settlements Programme at its twenty-fourth session, http://unhabitat.org/wp-content/uploads/2014/12/Decisions-and-resolution-GC-24th-session.pdf
[10] UN (2012) Implementation of the outcome of the United Nations Conference on Human Settlements (Habitat II) and strengthening of the United Nations Human Settlements Programme (UN-Habitat) http://unhabitat.org/wp-content/uploads/2014/07/Resolution-adopted-by-the-General-Assembly-ARES662071.pdf
[11] eSocSci http://www.esocsci.org.nz/

How the report is structured

The UN template for national reports was used as a basis so that comparisons could be made with reports from other countries. The word counts for each section also created a disciplined and concise form of writing. The report draws on official statistics, published research and the experience of the researchers themselves. As part of the kaupapa or approach, contributors were explicitly asked to address the socio-cultural reality of Māori and where possible have referred to relevant literature. We acknowledge that the scope of the project and its voluntary nature did not result in exhaustive engagement, and that there are omissions which future work will rectify.

The key implementers of the New Urban Agenda

Local governments have a number of particular characteristics that make them well positioned to play a unique role in implementing the New Urban Agenda: they have close proximity to citizens; are linked to a geographical area; can be more flexible and responsive and they have the ability to promote citizen participation. So it is in keeping with the particular role of local government in the past that the New Urban Agenda in Aotearoa New Zealand is led by local government. The role and responsibility of national government would be to provide an enabling regulatory framework, for instance, to ensure participatory democratic processes, subsidiarity in tax collection, and labour relations based on decent work.

The editorial team would like to thank everyone who contributed. It is recognised that contributors may not necessarily agree with every statement in the report. The discussion is expected to continue on the eSocSci online platform.

Acronyms

BRT	Bus Rapid Transit
CCO	Council Controlled Organisation
CDEM Act	Civil Defence and Emergency Management Act
CERA	Canterbury Earthquake Recovery Authority
CPTED	Crime Prevention through Environmental Design
CRL	City Rail Link
CV	Capital Value
CYF	Child Youth and Family
DRR	Disaster Risk Reduction
GFC	Global Financial Crisis
GHG	Greenhouse Gas
GIA	Gender Impact Assessment
ICT	Information and Communication Technology
IRR Scheme	Income Related Rents Scheme
LGA	Local Government Act
LTMA	Land Transport Management Act
MBIE	Ministry of Business Innovation and Employment
MDG	Millennium Development Goal(s)
MFE	Ministry for the Environment
MSD	Ministry of Social Development
MWA	Ministry of Women's Affairs
NES	National Environmental Standards
NIMBY	Not in my backyard
NUA	New Urban Agenda
NZETS	New Zealand Emissions Trading Scheme
NZTA	New Zealand Transport Agency
OCR	Official Cash Rate
OECD	Organisation for Economic Co-operation and Development
OSC	Office for Senior Citizens
PLT Arrivals	Permanent and Long Term Arrivals
RAPCG	Research and Academic Partner Constituent Group
RMA	Resource Management Act
RoNS	Roads of National Significance
SCIRT	Stronger Christchurch Infrastructure Rebuild Team
SDG	Sustainable Development Goal(s)
TA	Territorial Authority
TMC	Tāmaki Regeneration Company
UNFCCC	United Nations Framework Convention on Climate Change
VKT	Vehicle Kilometres Travelled

Māori Terminology

Aotearoa	New Zealand
Hapū	Descent groups
He Kainga Oranga	Housing and Health Research Programme
Iwi	People
Kaupapa	Principle or policy
Marae	Communal/sacred place for religious and social purposes
Ngā Puhi	Māori iwi traditionally located in the Northland Region
Ngāi Tahu	Principal Māori iwi of the southern regions of NZ
Ngāi Tūāhuriri	One of the Ngāi Tahu hapū
Ngāti Porou	Māori iwi traditionally located in the East Cape and Gisborne regions
Papakainga	Housing developments on multiply-owned Māori or ancestral land
Rohe	Territory or boundaries of tribal groups
Tangata Whenua	First peoples, or the original inhabitants of New Zealand
Taonga	Sacred or prized objects
Treaty of Waitangi	Treaty signed by representatives of the British Crown and Māori chiefs from the North Island of NZ
Waahi Tapu	A place spiritually and culturally sacred to Māori
Wāhine	Women

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Chapter 2 Section 2.4	Dr. Martha Bell Associate Professor Imran Muhammad
Chapter 2 Section 2.5	Associate Professor Hamish Rennie Dr. Suzanne Vallance
Chapter 2 Section 2.6	Dr. Stephen Knight Lenihan
Chapter 3 Section 3.1	Dr. Hugh Byrd Associate Professor David Grinlinton Dr. Stephen Knight Lenihan
Chapter 3 Section 3.2	Associate Professor JC Gaillard Mischa Hill Dr. Sandeeka Mannakkara
Chapter 3 Section 3.3	Associate Professor Imran Muhammad
Chapter 3 Section 3.4	Associate Professor Kim Dirks Dr. Jennifer Salmond
Chapter 3 Section 3.5	Dr. Stephen Knight Lenihan
Chapter 4 Section 4.1	Associate Professor David Grinlinton Associate Professor Kenneth Palmer
Chapter 4 Section 4.2	Associate Professor David Grinlinton Associate Professor Kenneth Palmer
Chapter 4 Section 4.3	Associate Professor David Grinlinton Associate Professor Kenneth Palmer
Chapter 4 Section 4.4	Associate Professor David Grinlinton Associate Professor Kenneth Palmer

Chapter 4 Section 4.5	Associate Professor David Grinlinton Associate Professor Kenneth Palmer
Chapter 4 Section 4.6	Associate Professor David Grinlinton Associate Professor Kenneth Palmer Guy Salmond Dr. Stephen Knight Lenihan
Chapter 5 Section 5.1	Associate Professor Christine Cheyne
Chapter 5 Section 5.2	Professor Laurence Murphy
Chapter 5 Section 5.3	Associate Professor Christine Cheyne
Chapter 5 Section 5.4	Shamubeel Eaqub
Chapter 5 Section 5.5	Dr. Zhi Dong
Chapter 5 Section 5.6	Professor Dory Reeves
Chapter 6 Section 6.1	Dr. Kimberley O'Sullivan Dr. Manfredo Manfredini
Chapter 6 Section 6.2	Dr. Kimberley O'Sullivan
Chapter 6 Section 6.3	Dr. Kimberley O'Sullivan
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Chapter 1: Urban Demographics

1.1 Managing Rapid Urbanisation

Overview. The urbanisation of New Zealand took place through the twentieth century, rising from 45 percent urban at the beginning of the century[12] to over 85 percent in the twenty first century. The rate of urbanisation has however slowed in recent years. An important aspect was the urbanisation of Māori from the 1950s onwards.[13] Currently, more critical than the rate of urbanisation is uneven regional growth, and especially the rapid growth of the largest city, Auckland, in relation to other areas. Between 2001 and 2013, Auckland accounted for 52 percent of New Zealand's population growth, despite containing only one-third of its population. This rapid growth is explained by the facts that over one-half of new migrants have settled in Auckland, and that it has a younger population than most of the rest of the country, and consequently higher birth rates. The high levels of growth have had significant implications for the provision of infrastructure and services in Auckland, with pressure on the transport system, schools and housing being notable. In relation to the latter, Auckland house prices are significantly higher than in the rest of the country, and housing affordability is one of the worst in the world.[14]

Immigration. In 1986 and 1987, the New Zealand Government undertook a review of immigrant policy and changed its immigration recruitment and approval policies similar to those of Canada and Australia, with a points system which targets immigrants who have the potential to contribute to New Zealand's economy.[15] Recently, New Zealand has refined its application and approval system (Expression of Interest) which has also been adopted by Australia and Canada, with New Zealand acting as an innovator. Similar to observations in Australia and Canada, there have been other shifts, notably an increase in temporary options (a range of temporary work visas) and an opportunity for those on study visas to transition to permanent residence. This temporary pool provides an important source for permanent approvals although there has been criticism that the temporary flows are largely "unmanaged".[16]

Currently, the inflow of both permanent and temporary residents is the highest it has ever been. This reflects the desirability of the country as an immigrant destination with the quality of lifestyle being the major reason given by immigrants for choosing New Zealand, and an effective immigrant recruitment system. This spike began in 2014 and has continued. In the year to February 2016, the annual Permanent and Long Term (PLT) Arrivals rose to 124,200, providing a record net gain of 67,400 immigrants.[17] The most significant categories were those on work

[12] Phillips, J. (2016) 'Rural mythologies - Country versus city, 1890–1945', Te Ara - the Encyclopedia of New Zealand, updated 2-Feb-15. URL: http://www.TeAra.govt.nz/en/graph/20312/rural-and-urban-populations-1891-1951

[13] Keane, B. (2016) 'Te Māori i te ohanga – Māori in the economy - Urbanisation', Te Ara - the Encyclopedia of New Zealand, updated 22-Mar-16. URL: http://www.TeAra.govt.nz/en/te-maori-i-te-ohanga-maori-in-the-economy/page-6

[14] Gibson, A. (2016) "Auckland has the fifth least-affordable houses in the world". *New Zealand Herald*, Jan. 25, 2016 http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11579043

[15] Spoonley, P. and Bedford, R. (2012) *Welcome to our world? Immigration and the reshaping of New Zealand*: Auckland, Dunmore Publishing.

[16] Fry, J. and Glass, H. (2016). *Going places. Migration, economics and the future of New Zealand.* Wellington Bridget Williams Books.

[17] Statistics New Zealand (2016). *International travel and migration: February 2016.* Wellington. Statistics New Zealand.

visas (38,600), New Zealand and Australian citizens (36,400) and students (28,100). The net gain of arrivals from Australia is a significant component of these flows, and it should also be noted that the immigrant arrivals per capita for New Zealand is the highest in the OECD.[18] Given the diversity of these inflows (the net gains were highest for India, China, the Philippines and the UK in that order), there are dramatic consequences for the ethnic diversity of New Zealand and especially Auckland where 40 percent of the city's residents have been born in another country. This has implications for the country's bicultural focus and the impacts for Māori of these inflows is a politically sensitive one.

The proportions of more 'visible' new migrants settling in Auckland are greater than for all migrants, with 72 percent of those from Pacific island countries and 66 percent of Asian migrants settled there.[19] This has resulted in a highly diverse urban population and ethnoscape, and this poses challenges for agencies which deal with migrant and refugee integration.[20] After Auckland, the largest numbers of migrants are settled in the second and third largest cities of Wellington and Christchurch, but most urban areas of New Zealand have been impacted by the immigration of both permanent residents and student and work visa migrants.[21] Issues of ethnic clustering and other impacts of new migrant populations have become political issues in some cases, although overall acceptance of Asian migrants has increased in New Zealand in recent years, across most issues.[22] Of great concern in relation to ethnic clustering, is the existence of suburbs where disadvantage is concentrated, especially of Māori and Pacific populations, but in some cases of other new migrants as well.

Internal migration. Since the beginning of the twenty first century, Auckland has had a (small) net internal migration loss, as some people in mid-age or later have chosen to move to small centres for lifestyle and cost of living reasons. These internal migrants have largely moved to adjacent areas, while many more 'remote' cities and regions struggle to maintain their populations, economies and services.

Urban growth policy and management. There is no explicit central government policy on urban growth rates or uneven regional population growth. Nevertheless, in the past some governments have had regional growth strategies to encourage population growth beyond the larger cities, but these initiatives have largely lapsed. A variation of this implemented in 2016 is a policy to give migrants an incentive to settle in the 'regions'.[23] Dealing with the implications of population growth is largely the responsibility of Territorial Authorities at the local and regional levels guided by the Resource Management Act 1991 and its amendments. In 2010 the central government created an Auckland 'supercity' by merging seven local authorities and one regional authority. The new Auckland Council has been tasked with dealing with issues of rapid population growth, and is still in the process of negotiating a Unitary

[18] The World Migration Report 2015: Migrants and Cities, New Partnerships to Manage Mobility. International Organization for Migration, Geneva: Switzerland.
[19] In this and subsequent paragraphs, data which are unreferenced are derived from the first author's own data analysis from the 2013 Census and earlier censuses. The source of these is Statistics New Zealand, in some cases from customised commissioned databases.
[20] Friesen, W. (2015). *Asian Auckland: the multiple meanings of diversity.* Wellington*:* Asia New Zealand Foundation.
[21] Friesen, W (2015). *Beyond the metropoles: the Asian presence in small city New Zealand.* Wellington*:* Asia-New Zealand Foundation.
[22] Asia New Zealand Foundation (2016). *New Zealanders' perception of Asia and Asian peoples. 2015 annual survey.* Wellington: Asia New Zealand Foundation.
[23] Edwards, B (2015). "PM announces immigration rule change" Radio New Zealand, July 26, 2015. http://www.radionz.co.nz/news/political/279717/pm-announces-immigration-rule-change

Plan with one of the most controversial elements being the intensification of housing, including medium and high rise dwellings in areas which have traditionally had stand-alone 'suburban' housing.

1.2 Managing Rural-Urban Linkages

There are a range of rural-urban linkages which could be considered as follows:

Economic and transport linkages. Much of New Zealand's primary production is oriented towards export, e.g. dairy, sheep and beef, timber, horticulture. Thus, transport linkages are important between port cities and their hinterlands, as well as the movement of people and locally-consumed goods. While public transport (mostly privately owned but publically regulated) is available between larger cities and towns, private vehicles are generally depended on in more remote areas.

Internal migration and immigration. The scaling up of some economic sectors such as dairy has resulted in larger economic units, and more diverse rural populations in some areas, while other rural areas have experienced net migration loss.[24] The attraction of urban areas for younger rural people has resulted in them being unavailable for employment in the primary production sector, so industries such as dairy and horticulture have become dependent on international migrant labour.

Unequal population growth and service provision. Since much of New Zealand's population growth is based in urban areas, over time, especially since subsidies were removed by neoliberal restructuring starting in the 1980s, this has resulted in the restructuring of services and the closure of some facilities in small towns. Notable are the closures and amalgamations of schools, medical facilities, post offices and other services which have been seen as the 'heart' of these towns and adjacent communities. In the public (rural) imagination, these are sometimes seen as the impoverishment of rural areas as a result of urban growth.[25] Balanced against this has been the post-restructuring growth of particular rural regions which have developed niche industries such as viticulture, wine-making and international tourism which attract capital, visitors, migrants, real estate development and an array of service firms as a result of their perceived high amenity. As a result of the changes wrought in these processes these places are often the site of contest between boosteristic developers and individuals and groups with a more conservative ethos.[26,27]

Spill-over effects of urban growth. The disproportionate growth of Auckland has been mentioned in section 1.1, and this has an impact beyond the urban area itself. Some of this growth appears to have 'spilled over' into adjacent regions such as Bay

[24] Natalie Jackson, "Ageing populations and regional decline". December 10, 2015. http://briefingpapers.co.nz/2015/12/ageing-populations-and-regional-decline/

25 NZ Society of Local Government Managers. "Addressing the challenge of demographic change", May 8, 2014. https://www.solgm.org.nz/Folder?Action=View File&Folder_id=150&File=14 05 08 Sector Future Working Party Paper FINAL for web

[26] Woods, M., 2011, The local politics of the global countryside: boosterism, aspirational ruralism and the contested reconstitution of Queenstown New Zealand. GeoJournal 76(4): 365-381.

[27] Perkins, H. C., Mackay, M. and Espiner, S., 2015, Putting pinot alongside merino in Central Otago, New Zealand: rural amenity and the making of the global countryside. Journal of Rural Studies 39: 85-98.

of Plenty, Waikato and Northland. In an economic sense, this has benefitted these regions, stimulating job growth and new enterprises. However, it has also impacted rural regions, especially coastal, in which land prices have escalated due to new internal migrants and holiday home owners from the 'big city'.[28] In some cases this has also happened around other larger cities such as Wellington and Christchurch. These expansions of the 'urban into the rural' have implications for the environment, such as greater pressure on conservation areas, and greater consumption of marine resources in coastal areas.

Political linkages. There are 17 regional councils (including unitary councils) in New Zealand which have specified planning and regulatory responsibilities. In most cases these councils cover both rural and urban areas, often based on recognised natural boundaries, such as water catchments. To some extent, this allows for coordinated planning between rural and urban in such areas as environmental monitoring, regulation, and mediation; provision of services such as transport; and integrated land use planning. However rural populations within larger councils often feel that their voices are overwhelmed by urban interests.

1.3 Addressing Urban Youth Needs

Overview. Child Youth and Family, the government agency responsible for the wellbeing of New Zealand's children stated that the long-standing vulnerability of many of our children and young people is the most pressing social issue confronting New Zealanders today[29]. In 2014 some 29% of 0-17 year olds lived in income poverty (up from 23% in 2013)[30], 16% lived in a crowded house (with significantly higher rates for Pacific Island and Asian children), and 46% of children in solo parent families lived in hardship. Māori children are higher on all vulnerability statistics, for example they have four times the sudden death rates of other infants and make up the majority of children in care. Māori and Pacific Island children are especially vulnerable to the effects of urbanisation and growing inequity. As a society New Zealand needs to seriously address the living conditions of its children and young people, and particularly address the fact that for many, poverty and deprivation are on the rise.

Challenges. Child Youth and Family is currently being overhauled by the NZ Government, however there is no universal Aotearoa New Zealand childhood. Socio-economic differentiation is growing, societies are more multicultural, lives more mobile, increasing numbers of children having lived overseas, and home environments are changing (e.g. children commuting between parental homes). Children's lives are increasingly complex and contradictory. They travel more but their independent mobility is decreasing. Fears around safety and pressures to achieve through educational and cultural activities are compounding this declining independence. While New Zealand is predominantly low density, has good public

28 Phil McDermott. "Provincial growth is Auckland's loss" New Zealand Herald, January 18, 2006. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10364132
29 Modernising Child Youth and Family, Interim Report, 31st July 2015. Claire Falck, Head of Secretariat – MSD, NZ Govt, p. 5.
30 Child Poverty Monitor Technical Report http://www.nzchildren.co.nz/
Simpson J, Duncanson M, Oben G, Wicken A, Pierson M. Child Poverty Monitor 2015 Technical Report. Dunedin: NZ Child and Youth Epidemiology Service, University of Otago; 2015.

and private greenspace and good infrastructures in terms of schools, services, and natural beauty, on significant key indices of welfare it does not perform as well. New Zealand housing is rated as severely unaffordable with Auckland being placed 347th out of 360 in an international survey of housing affordability. Unaffordability impacts particularly heavily on Māori and Pacific Island children with high numbers of Pasifika families (43%) and Māori (23%) living in overcrowded homes with unfavourable consequences on children's health, education and general wellbeing[31].

Digital Challenges. Another contemporary issue is digital challenge, connectedness and risk of harm. Many urban youths live in neighbourhoods lacking gathering places. In the absence of physical third places in urban neighbourhoods, the internet, and in particular social networking sites, may serve as a digital third space for youth, providing a sense of connectedness. For urban youth in particular, better Information and Communication Technology (ICT) infrastructure may increase their use of the internet. This, may in turn influence their usage and perceptions of connectedness, and risk, in various ways. Young New Zealanders are spending significantly more unsupervised time online. As more young people go online for longer, the frequency of digital challenge they experience will go up. This continues to be reflected in the fact that the volume of reports NetSafe[32] (a non-profit organisation supporting online safety and security) receives goes up year by year. In 2015 NetSafe received 8570 requests for advice or support, an increase of 6% from 2014[33]. The creation and sharing of self-generated pornographic imagery, often termed sexting, has increasingly become normalised by people of all ages, and particularly prevalent amongst young people. NetSafe recorded more than 60 cases in 2015 where the sharing of sexual imagery or online sexual activity, often live over webcam, had led to blackmail or 'sextortion' demands being made.

1.4 Responding to the Needs of the Aged

Overview. New Zealand's older population is growing rapidly, and is projected to double by 2030 to over 1.2 million people over 65 (almost a quarter of the population).[34] With increased life expectancy, highest growth rates will be amongst the oldest old (85+). There will also be rapid growth in smaller urban areas, although the majority of older people live in large urban areas.[35] Significantly, there will be greater diversity amongst older people, with more Māori, Pacific and Asian older people.[36] Already there are disparities in life expectancy, health outcomes, and material hardship for older Māori relative to non-Māori, with compounded disadvantage from multiple sources.[37] Pacific and Asian people and older non-English speaking migrants are also disadvantaged relative to their New Zealand European counterparts. It is crucial to recognise the interdependence of all people

[31] Habitat for Humanity 10th Annual International Housing Affordability Survey (2013) http://www.habitat.org.nz/about/the_need_in_nz.html
[32] NetSafe is an independent non-profit organisation. Their purpose is to promote safe and responsible use of online technologies.
[33] Netsafe (2015) Digital challenges and New Zealanders: a focus on the incident reports and inquiries made to Netsafe in 2015, Netsafe
[34] Statistics New Zealand. New Zealand Period Life Tables 2012-14. Wellington: Statistics New Zealand; 2015.
[35] Dunstan K, Thomson N. Demographic Aspects of New Zealand's Ageing Population. Wellington: Statistics New Zealand; 2006.
[36] Statistics New Zealand. Ageing of Ethnic Groups (Structural Change and the 65+ Population articles). Wellington: Statistics New Zealand; 2009.
[37] Kukutai T. Elder Or Merely Older?: Enhancing the Wellbeing Of Older Maori In An Ageing Maori Population. Hamilton: Family Centre Social Policy Research Unit and the Population Studies Centre at the University of Waikato; 2006 May. Report No.: 2.

and the vital contributions older people make to their communities[38], including the valued experience, wisdom and cultural knowledge and well-defined roles and responsibilities of older Māori.[39]

Current Situation and Challenges. The proportion of older people living alone is increasing, as is the number of people living with a disability.[40] New Zealand has a universal pension plan that is neither income nor asset tested, and no forced retirement, but many older people have resources only just adequate for their consumption needs and wellbeing and this will become a bigger problem in future.[41] Currently most older New Zealanders own their homes mortgage-free or have assets, but trends in homeownership are steadily declining.[42] For many older homeowners, home maintenance and renovations to make housing more appropriate are difficult to manage financially; for older renters, affordability of housing is a substantial problem.[43, 44] More than 20% of those over 65 are currently in some form of paid work and this will likely increase to 30% in the next decades. It will be a challenge to ensure ageism does not exclude those who wish to work providing valuable skills and experience.[45] Supporting health and older people's desire to age in place (or 'stay put') will be crucial for urban areas, and a significant challenge will be to ensure appropriate resources are in place to support this such as health and social support, urban amenities and services including transport and recreation.[46,47,48] Currently District Health Boards assess, co-ordinate, and pay for home support services for those deemed eligible; the Gold Card[49] allows transport concessions at off-peak hours, but other targeted service provision must increase in the future.

Policy and Future Service Provision. In 2001, the Office for Senior Citizens (OSC) with the Ministry of Social Development (MSD) introduced the Positive Ageing Strategy, outlining an ideal vision for a society where older people are valued and recognised.[50,51] Ten principles highlight inclusiveness, choices, and the need to respect the diversity of the ageing population. Critics have highlighted the over-emphasis on economic and productive dimensions of ageing and the overly optimistic view of self-reliance, independence and active participation, which may expose the 'frail old' or isolated to risk of further marginalisation.[52] A 2014

[38] Wiles J, Jayasinha R. Care for Place: the contributions older people make to their communities. Journal of Aging Studies. 2013;27(2):93-101.
[39] Durie M. Kaumatautanga reciprocity: Maori Elderly and Whanau. New Zealand Journal of Psychology. 1999;28(2):102-6.
[40] Khawaha M, Thomson N. Population ageing in New Zealand. Key Statistics. 2000(January/February):7-10.
[41] Perry B. Household incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2013. Wellington: Ministry of Social Development; 2014.
[42] Statistics New Zealand. How will New Zealand's ageing population affect the property market? Wellington: Statistics New Zealand; 2013.
[43] Keeling S. Later Life in Rental Housing: Current New Zealand Issues. Policy Quarterly. 2014;10(3):49-53.
[44] Johnson A. Housing Briefing Paper. Auckland: Child Poverty Action Group; 2015.
[45] Statistics New Zealand. Older New Zealanders - 65 and Beyond. Wellington; 2004.
[46] Ministry of Social Development. 'In A Place I Call My Own': Support Networks of Older People Ageing in the Community. Wellington: Ministry of Social Development; 2009.
[47] Davey J, de Joux V, Nana G, Arcus M. Accommodation Options for Older People in Aotearoa/New Zealand. Wellington: Prepared for the Centre for Housing Research Aotearoa/New Zealand (CHRANZ), by New Zealand Institute for Research on Ageing/Business and Economic Research Limited; 2004.
[48] Wiles J, Leibing A, Guberman N, Reeve J, Allen RES. The Meaning of 'Ageing in Place' to Older People. The Gerontologist. 2011;52(3):357-66.
[49] http://superseniors.msd.govt.nz/out-about/supergold-card/index.html
[50] Ministry of Social Development. Positive Ageing in New Zealand: Diversity, participation and change. Wellington: Ministry of Social Development; 2001.
[51] Ministry of Social Development. Positive Ageing Indicators 2007. Wellington: Ministry of Social Development; 2007.
[52] Davey J, Glasgow K. Positive Ageing - A Critical Analysis. Policy Quarterly. 2006;2(4):21-7.

OSC/MSD revision report[53] argues for more resource and policy input from central government, more opportunities for older people and their advocates to participate in planning and design of environments and service provision. A key challenge will be to adequately address the complex needs of an increasingly diverse population group, e.g., with language- and culturally-appropriate services.

1.5 Integrating Gender in Urban Development

Overview. Between 1992 and 2016, New Zealand has taken a few steps forward and a few steps backwards when it comes to addressing gender issues. Following the Fourth World Conference on Women in Beijing in 1995, the Ministry of Women's Affairs (MWA) in the government of Aotearoa/New Zealand launched the instructional document, "Full Picture" - a framework for gender analysis designed to facilitate the systematic integration of gender analysis into government policy work.[54] Although gender analysis in policy papers for consideration by Cabinet was requested, research by the Ministry of Women's Affairs showed that most departments were not engaging in gender analysis.[55]

A key piece of national planning guidance, The Urban Design Protocol issued in 2008/9, did make reference to gender, in relation to safety. The initial focus on creating well-designed medium density housing schemes has one reference to women in connection with Crime Prevention through Environmental Design (CPTED) on page 10. However, the description of social impact analysis does not mention gender but instead people.[56] The current Statement of intent from the Ministry for the Environment (MFE) focuses explicitly on 'positive ageing, pay and employment equity and disability,' with no acknowledgement of the gendered nature of the issues relating to these groups.[57]

Current and Future Challenges. There is a continuing need to tackle the highly resilient nature of gender inequality and discrimination. There is no effective architecture in New Zealand at the national level or city level for ensuring that the gendered nature of issues is taken into account in the planning and design of our cities. There is no requirement to undertake Gender Impact Assessment (GIA) of city plans. Many cities in New Zealand have Advisory Groups for Māori, Pacific, Youth, Seniors and Disability but not women.

Research has shown that survey data is regularly collected without differentiation by gender, or if so, matters relevant to women are not analysed in the reports produced.[58] The definitions and terms used in policy and strategic documents (for

[53] Office for Senior Citizens. 2014 Report on the Positive Ageing Strategy. Wellington: Office for Senior Citizens; 2015.

[54] Ministry of Women's Affairs. (1996). Full Picture, Guidelines for Gender Analysis: Te Tirohanga Whanui: Nga aratohu mo nga rereketanga ira tangata. Wellington: MWA.

[55] Ministry of Women's Affairs. (2002). *Briefing for incoming Minister*. Wellington: MWA.

[56] Ministry for the Environment. (2015). *Social Impact Analysis*, Wellington: MfE, http://www.mfe.govt.nz/publications/towns-and-cities/urban-design-toolkit-third-edition/section-1-research-and-analysis#social (accessed January 2016).

[57] Ministry for the Environment. (undated). *Statement of Intent 2010-2013*.Wellington: MfE. http://www.mfe.govt.nz/publications/about/soi/2010/page6.html (accessed January 2016).

[58] For example, the NZ Household Travel Survey by the Ministry of Transport does not provide information on women's travel habits even though the survey findings indicate that the data collected was categorized by gender Zombori, E. (2012). *What changes in cycling policies would increase the number of women cyclists in Auckland?* Master's Research Project. Auckland: University of Auckland.

both central and local government) are derived from a 'male' perspective. This has a clear effect at the implementation stage of projects, where terminology translates into practical applications. For example, the word 'safety' is interpreted differently for men and women, and a development deemed 'safe' by and for men, may not seem so to women or transgender people.[59]

Proposed changes in planning-related legislation do not deal with women as a group and this has a clear negative influence on the prospect of gender equal urban environment (Resource Management Act reform and the Productivity Commission's Investigation into urban planning). It is unclear how the key ministries co-ordinate their activities.[60] A more androgynous people based approach to planning is evident and appears unlikely to address gender inequality. Related to this and despite the existence of organisations, such as Te Wharepora Hou[61], a collective of wāhine Māori of Aotearoa (indigenous women of New Zealand), the needs of wāhine have yet to be fully addressed in planning.

1.6 Chapter Summary and Issues that could be addressed by the New Urban Agenda

A new urban agenda (NUA) needs to promote better integrated planning between urban, peri-urban and rural communities. Currently planning processes fragment what is essentially a continuum of urbanised communities, particularly in the top half of the North Island. Arguably, urbanisation, or more particularly the impacts of urbanisation, should be viewed as a regional issue, rather than being confined to areas defined as 'urban'.

Fragmentation creates barriers for effective planning on such things as affordable housing, transport, service provision and employment. Human and land resource management outcomes suggest a more interventionist approach to policy evolution is required, in contrast with the largely *laissez-faire* approach of the last 30 years. Less desirable outcomes to date include:

- Erosion of services in smaller rural centres;
- A consequent focus on main centres, despite the desirability of maintaining smaller-centre infrastructure for longer-term demographic and immigration settlement trends;
- High costs of land and dwellings disproportionately affecting the young, Māori and Pasifika people, as well as spilling over to areas around major urban centres; and
- A loss of younger rural people to towns and cities and the consequent reliance on international migrant agricultural labourers

[59] Zombori, E. (2012). What changes in cycling policies would increase the number of women cyclists in Auckland? Master's Research Project. Auckland: University of Auckland.
[60] For example, the Ministry of Women's Affairs priorities are economic independence; more women in leadership and increased safety from violence particularly intimate partner violence but how the work of the Mfe and Ministry for Transport contributes to these priorities is unclear.
[61] Te Wharepora Hou. (2014). https://tewhareporahou.wordpress.com/about/

Some of these negative effects are balanced by the growth of niche industries in some smaller centres. A NUA would need to identify what a more interventionist approach would look like.

Another theme relates to social fragmentation due to marginalisation based on age, ethnicity and/or gender. As policy evolution is controlled by the non-marginalised, this may result in framing an issue from a dominant viewpoint that misinterprets the problem and creates less effective policy. Observations include:

- Child and youth vulnerability to overcrowded housing, over-represented in Māori and Pasifika children, and related to single-parent families on relatively low incomes with limited options;
- Older New Zealanders meanwhile will require employment for longer and will live longer, placing a greater demand on health and accommodation, balanced to an extent by possible migration to smaller urban centres;
- These two trends may reinforce each other negatively, with the added observation that Māori, Pacific and Asian elderly, and non-English speaking migrant elderly, are disadvantaged relative to New Zealand Europeans;
- Critiques of current policy and strategy also note an overemphasis on economic and productive dimensions of ageing and the overly optimistic view of self-reliance;
- A reliance among younger people on digital social networks, which is beneficial, balanced by increasing risk of exposure to undesirable material, or being digitally bullied;
- Despite at least two decades recognising the need to do so, there remains a limited recognition of the differential effects of urban policy on non-male citizens, specifically women but including those with alternative sexual orientations. A particular example is designing for safety. An indicator of the lack of action is the dearth of urban advisory groups for women, and the lack of a requirement to undertake Gender Impact Assessments; and
- Data collected is often not gender-differentiated, or if it is, matters relevant to women are not analysed in the reports produced

Hence a challenge for a NUA is to better incorporate those representing marginalised groups in decision-making processes. Some groups may lack the means and access to be involved and may require culturally appropriate approaches to stimulate involvement. It may not be sufficient to merely provide the opportunity, and instead it might be necessary to create opportunities within a different frame of reference. This is challenging to existing power and institutional systems.

Progress is being made; positive ageing initiatives in Christchurch, Hamilton, Palmerston North, New Plymouth and Kapiti Coast are part of the World Health Organisation's Age Friendly Cities movement[62] which emphasises eight domains for liveability. 'Napier Connects' is a council-led initiative to reduce and prevent social isolation. Other municipalities are working with businesses to create 'dementia friendly communities' and to be more 'age friendly'. However, progress is highly variable: many councils have done nothing, or raised issues for consultation but not implemented meaningful change.

[62] World Health Organisation 2007 Global Age-Friendly Cities Project. Geneva.

A continuing challenge will be dealing with on-going high levels of international migrants. This makes Auckland one of the world's most ethnically diverse cities and places increasing demands on resources helping new arrivals adjust to their adopted home.

In terms of youth, despite being an early signatory (1993) to the United Nations Convention on the Rights of the Child, implementation has been patchy. Children with disabilities, Māori and Pasifika children, immigrant and other children are marginalised in having their rights recognised and voices heard. Measures such as the Vulnerable Children Act 2014 and CYF's strategic plan to 2015, Mā mātou, mā tātou – 'Changing Young Lives' aim to redress this.[63] Children's voices are not heard on aspects of their lives such as housing, recreation, transport, education, or urban development. All children need a voice on all aspects of their lives. In professions such as town planning there is growing recognition of children and young people's right to participate, but implementation lags well behind the rhetoric. In terms of digital harm, findings from Australia suggest that, for young people, sexting was considered a positive experience; a lot of the time sexting was with a regular partner and there was a clear distinction between those consensual 'sexts' and those that were non consenting[64]. This would suggest the need for a harm reduction-focused approach that moves away from victim-blaming.

For the aged, the private sector will need to be more adaptive to the needs of their older customers. In urban environments, major needs will be accessibility and affordable housing options including renovations[65], good design for mobility and participation (safe streets and parking, provision for mobility scooters, walkable neighbourhoods)[66,67], and enabling access to good paid support as well as supporting families and friends who provide care. A key challenge will be creating and supporting a variety of inclusive spaces and opportunities for older people to participate (clubs, libraries, men's sheds, parks, and community gardens), reducing social isolation and potential for elder abuse.

From the gender viewpoint, proposed changes in planning-related legislation do not deal with women as a group, and this has a clear negative influence on the prospect of gender equal urban environments. In addition, it is unclear how the key ministries co-ordinate their activities in terms of accounting for different gender needs.[68] The currently androgynous people based approach to planning is evident and appears unlikely to address gender inequality. Related to this and despite the existence of organisations such Te Wharepora Hou,[69] the needs of wāhine Māori/indigenous women of Aotearoa (New Zealand) have yet to be fully addressed by planning.

[63] http://www.cyf.govt.nz/about-us/news/2012/child-youth-and-familys-new-strategic-plan-launched.html. The Vulnerable Children Act 2014

[64] Crofts, T., Lee, M., McGovern, A. and Milivojevic, S., (2015). Sexting and Young People. Palgrave Macmillan: London.

[65] Howden-Chapman P, Signal L, Crane J. Housing and health in older people: Ageing in place. Social Policy Journal of New Zealand. 1999(13):14-30.

[66] Wiles J, Kerse N, Wild K, Guberman N, Leibing N. Resilient Aging in Place: Improving the Lives of Older People in NZ Communities. Auckland: Health Research Council grant 07/285; 2007.

[67] Wiles J, Wild K, Allen RES. Resilience from the point of view of older people: 'There's still life beyond a funny knee'. Social Science and Medicine. 2012;74(3):416-24.

[68] For example, the Ministry of Women's Affairs priorities are economic independence; more women in leadership and increased safety from violence particularly intimate partner violence but how the work of the Mfe and Ministry for Transport contributes to these priorities is unclear.

[69] Te Wharepora Hou. (2014). https://tewhareporahou.wordpress.com/about/

Chapter 2: Land and Urban Planning

2.1 Ensuring Sustainable Urban Planning and Design

Overview and Challenges. Aotearoa/New Zealand cities face a number of spatial and environmental challenges. Challenges include a lack of affordable housing, inefficient urban transport and movement systems alongside carbon reduction and conservation imperatives that promote limitations to city footprints. In the regions, towns and cities are facing a range of different challenges with some grappling with shrinking populations and issues of economic sustainability, and others with large increases in population and a lack of infrastructure to cope.

Legislative Tools. NZ's urban planning and design landscape is predominantly framed by two legislative tools; the Resource Management Act (RMA), 1991 and the Local Government Act (LGA), 2002. The last 10 years saw the introduction of governance and practice based urban design and planning initiatives which included modifications to both the RMA and the LGA since 2009. Cheyne[70] argues that these changes have led to a weakening of public participation in planning processes under the guise of fiscal efficiencies.

Incorporation of indigenous cultural considerations. With respect to urban design, in response to the exclusion of Māori worldviews in the development of the New Zealand Urban Design Protocol (2005) by the Ministry for the Environment, Ngā Aho, a network of Māori design professionals developed the Te Aranga Principles, a Māori Cultural Landscape Strategy (2008), whereby contributors co-created a series of high level principles. These have now been taken up by Auckland Council and incorporated into the Auckland Design Manual which sets out best practice design principles. This year (2016) the Council have appointed a Māori Principal Specialist - Mana Whenua Urban Design, a nationwide first, who will have the task of driving Auckland environments that represent the identities of mana whenua iwi and hapū in the city.

Redevelopment following the Canterbury Earthquakes. A growing awareness of the potential impact of climate change and natural hazards on city life has been fuelled by the Christchurch earthquakes in September 2010 and February 2011. These devastating events propelled the city into a new era of governance and practice with respect to urban design and planning. The Canterbury Earthquake Recovery Authority (CERA) set up in 2011 and disestablished in April 2016, led the Government's recovery efforts, essentially displacing local government of its traditional governance role[71]. Critics of this process have highlighted the lack of stakeholder involvement in the redevelopment process. However, positively local iwi and hapū were included, alongside central and local government, in the

[70] Cheyne, C. (2015). Changing urban governance in New Zealand: Public participation and democratic legitimacy in local authority planning and decision-making 1989–2014. Urban Policy and Research, 33(4), 416-432. (http://www.tandfonline.com/doi/abs/10.1080/08111146.2014.994740)

[71] Mamula-Seadon, L., & McLean, I. (2015). Response and early recovery following 4 September 2010 and 22 February 2011 Canterbury earthquakes: Societal resilience and the role of governance. International Journal of Disaster Risk Reduction, 14, Part 1, 82-95. (http://www.sciencedirect.com/science/article/pii/S2212420915000072).

redevelopment process. This has led to the promotion of Ngāi Tahu and Ngāi Tūāhuriri (the local hapū) identity in the built and natural Christchurch environment in a way that has never before been promulgated. In addition, grassroots transitional initiatives such as Greening the Rubble, Gap Filler, Life in Vacant Spaces and the Festival of Transitional Architecture have successfully sought to bring vitality back to the central city.

Urban planning and design in Auckland. New Zealand's largest city Auckland, has recently seen its governance structure changed from seven city/district authorities to one Unitary authority. In turn, this has resulted in the development of a number of plans for the city, the overarching one being the Auckland Plan adopted in March 2012. The plan sets out a 30-year vision with the hope of tackling transport, housing, employment and environmental problems and promoting healthy lives for children and young people. Specifically, in relation to urban design, Auckland's City Centre Masterplan and the Waterfront Plan have seen positive urban design changes in terms of increased public access and public life to these parts of the city[72].

Urban planning and design in Wellington. Urban design, in particular has previously had a strong pedigree in Wellington. Strategic investments include the development of Te Aro, the central city area and the waterfront, and the promotion of special medium density housing areas in the suburbs, though the latter was met with firm resistance in some areas. The proposed Basin Reserve flyover which sought to provide road connections across the central city sparked controversy and was ultimately scrapped. More recent urban design responses include the design of the Pukeahu war memorial, investment in more bike lanes into the city and the redevelopment of the Southern central city.

In the past year, the Productivity Commission, an independent Crown entity has been asked to look into ways to improve New Zealand's planning system. Submissions on an issues document closed in early March 2016 and a final report outlining recommendations is due to be released at the end of November 2016.

2.2 Improving Urban Land Management, including Addressing Urban Sprawl

The Resource Management Act. Urban land management is a complex task practised across a range of scales, involving a range of actors. Rather uniquely, in New Zealand, land use planning is largely undertaken in accordance with the Resource Management Act 1991 (RMA) which has the purpose of promoting the sustainable management of natural and physical resources. The Act makes no meaningful distinction between urban and rural areas as its focus is on the sustainability of the biophysical resource base and leaves land-use largely to market mechanisms.

[72] Haarhoff, Errol (2016) Shaping places: a role of urban design? In Architecture Now (online magazine) Accessed 10 June 2016, http://architecturenow.co.nz/articles/shaping-places-a-role-of-urban-design/

This conceptualisation of cities as bio-physical constructs has led to some rather perverse situations where, for example, residents may object to a small owner-operated brothel being located next door, but only on the grounds that the sign advertising the establishment avoids creating adverse effects on the environment (including amenities)[73]. Consequently, the planning profession has tended to emphasise apparently value-free 'technical' and 'facilitative' aspects of planning that achieve the purpose of the RMA, but at the expense of the transactional concerns around social and economic development, equality and wellbeing that characterised the 70s and 80s. For instance, the socio-cultural impacts on the indigenous urban Māori are largely ignored[74]. Mandatory statutory planning required under the RMA has largely subsumed other forms of non-mandatory planning enabled through, for example, the Local Government Act (LGA). The requirement for urban developments and infrastructure to meet the biophysical-oriented sustainability requirements of the RMA has led to sometimes uneasy relationships between regional government with responsibility for sustainability of natural resources ('air, water and soil') and territorial authorities who provide public services ('pipes, roads, and rubbish) in a manner that is consistent with regional government policies and plans.[75,76] The RMA processes also enable the general public to successfully oppose developments. For instance, high rise apartments in areas of predominantly low-rise residential dwellings, thus aggravating problems of providing affordable housing and energy savings through higher density.[77] A lack of a capital gains tax also encourages land-banking by developers.[78]

Legislation for Sustainable Development. The LGA was amended in 2002 to include sustainable development and significant non-mandatory, consultative strategic planning by some local governments (regional and city/district), address future urban development needs and guide subsequent provisions in local RMA plans.[79,80] However, the sustainable development provisions were removed from the LGA in 2013 by a conservative neoliberal central government that has become increasingly concerned with the cost of housing in the major growth centres. Ad hoc legislation[81] has been passed to enable mandatory spot zoning of areas for affordable housing development by central government, sometimes creating tension with local governments who will be required to provide infrastructure for the proposed new housing developments that have sought to constrain urban sprawl. However, provisions for housing accords between central and local government have created mutually supportive partnerships elsewhere and enabled fast-tracking of developments through the RMA processes. A Proposed National Policy Statement on Urban Development recognises that the current legislative framework is struggling to address increasing land and house prices in some parts of the country, however,

[73] Boyd, F. (2010). SOOBs in Christchurch: Go or whoa? Lincoln Planning Review "2(1): 20-23
[74] Ryks, J., Howden-Chapman, P., Robson, B., Stuart, K., & Was, A. Maori participation in urban development: challenges and opportunities for indigenous people in Aotearoa New Zealand Lincoln Planning Review 6(1-2): 4-17.
[75] Vallance, S., Perkins, H. C., Bowring, J., & Dixon, J. E. (2012). Almost invisible: Glimpsing the city and its residents in the urban sustainability discourse. *Urban Studies, 49*(8), 1695-1710.
[76] Swaffield, S. R. (2012). Reinventing Spatial Planning at the Urban Rural Interface: A Christchurch, New Zealand Case Study. *Planning Practice & Research, 27*(4), 405-422.
[77] Preval, N., Randal, E., Chapman, R., Moores, J., & Howden-Chapman, P. (2016). Streamlining urban housing development: Are there environmental sustainability impacts? *Cities, 55*, 101-112.
[78] Memon, A. and K. Macfarlane (2014) "Prolonged vacancy of residential zoned land in Auckland*" Planning Quarterly 194*: 22-25
[79] Cheyne, C. (2015). Changing urban governance in New Zealand: Public participation and democratic legitimacy in local authority planning and decision-making 1989–2014. *Urban Policy and Research, 33*(4), 416-432.
[80] http://greaterchristchurch.org.nz/ (downloaded 9 May 2016)
[81] Housing Accords and Special Housing Areas Act 2013

'development' appears to be seen as 'opening up land supply at the urban periphery' rather than exploring ways of consolidating and improving housing and retail in existing neighbourhoods.

Effectively addressing urban land management issues, such as regional development, risk reduction, housing shortages in some urban centres and sprawl may require expanding the purview of planning beyond biophysical dominated environmental aspects, and exploring mechanisms, tools and processes that enable better integration across the economic, social, cultural and environmental elements that comprise city living and urban life. In New Zealand, all those acting under the RMA (as well as councils under the LGA) must take into account the principles of the Treaty of Waitangi. Improved urban land management should, therefore, also take into these principles as well as the ability to accommodate alternative worldviews and engagement protocols.

2.3 Enhancing Urban and Peri Urban Food Production

This section does not take into account the socio-cultural reality experienced by Māori.

Overview. Urban and peri-urban agriculture has experienced a renaissance worldwide. Citizens and their governments have rediscovered the critical role that food and agriculture play in contributing to the health and wellbeing of urban residents.[82] In many parts of the world, cities are at the leading edge of the food planning movement due to recent recognition of the interconnections between food and a range of other sectors that are more commonly thought of as the business of cities (e.g. public health, social justice, energy, transport, land, water, economic development).[83] New Zealand cities are no different. Achievements in urban and peri-urban agriculture can be categorized as community-based, entrepreneurial and council planning.

Community-based. Community-based initiatives are more numerous and represent a diversity of approaches at multiple scales to raise awareness of food, facilitate the growth of urban food production from backyard gardening to market growers and to support the establishment or redevelopment of community gardens in NZ cities and communities[84]. At a neighbourhood level, there has been a rapid increase in the number of community gardens, often located on public land in partnership with schools or local councils[85]. Community gardens are a good example of the multi-functional nature of urban agriculture, as they contribute not just neighbourhood food production, but also address issues of community well-being, health, food security, nutrition and social connectedness[86].

[82] Mougeot, L. (2005). Agropolis: The social, political and environmental dimensions of urban agriculture. London: Earthscan/IDRC.
[83] Morgan, K. (2009). "Feeding the City: The challenges of urban food planning." *International Planning Studies* 14(4): 341-348.
[84] Haylock, K. (2015). Local Food Networks and Policy Implementation in Christchurch and Dunedin: A Comparative Case Study. MPlan Thesis. Dunedin: University of Otago.
[85] Arona, T. (2015). *Sowing the seeds of resilience: Community Perspectives.* Master's thesis. Wellington: Victoria University.
[86] Nettle, C. (2014). *Community gardening as social action.* Surrey: Ashgate.

Entrepreneurial. Greater focus on local food production has led to new entrepreneurial food initiatives. These initiatives are often reliant on new outlets for local producers to connect with local consumers, including farm gate sales, virtual food distribution hubs, food boxes and farmers markets that provide alternative supply chains to support urban agriculture[87]. In addition, specialized retail outlets have emerged in cities across NZ that provide increased options for urban food producers to expand sales and improve the profitability of urban and peri-urban farmers.

Council Planning. Local councils have recently begun to re-integrate food, urban agriculture and farmland preservation into their activities. Much of this is done in partnership with community groups under the umbrella of food resilience. Food networks and food policy councils have emerged to help identify possibilities to further enhance urban food production and consumption. For example, the Christchurch City Council has adopted a Food Resilience Policy to support access to healthy and affordable local food. Similarly, Dunedin City Council's 2nd Generation District Plan has established objectives to increase capacity for local food production.

Challenges. While there has been some progress at the local government level to enhance urban and peri-urban agriculture, proposed policy changes by central government (e.g. Resource Legislation Amendment Bill 2015) are likely to have a far greater (negative) impact on the ability to enhance urban agriculture in New Zealand in the future.

A number of cities have implemented goals and policies to protect highly productive agricultural land from urban development by establishing urban limits, minimum lot sizes and stricter density controls in the rural zone or by identifying particular sites of high quality soils as being off limits for development. However, the pressures of rapid urban growth and housing affordability associated with many NZ cities (Auckland in particular) have placed such policies under threat.

The NZ Productivity Commission report "Using land for housing" concludes that any attempt to preserve land for agriculture distorts housing markets and produces disincentives for agricultural producers to move to larger lots further away from cities. The report suggests that restrictions on the supply of land for housing is one of the key factors restricting housing development and contributes to rising housing costs.[88]

Similarly, central government's proposed National Policy Statement on Urban Development seeks to ensure that regional and district plans provide adequate development capacity for business and housing to facilitate urban growth.[89] This is likely to contribute to urban sprawl on high-class agricultural land, displacing existing farms and reducing future urban agricultural opportunities.

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[87] Stevenson, G. W., & Pirog, R. (2008). Values-based supply chains: Strategies for agrifood enterprises of the middle. In Lyson, T.A., Stevenson, G. W. and Welsh, R. (Eds.) Food and the mid-level farm: Renewing an agriculture of the middle, Cambridge: MIT Press (pp. 119-143).

[88] New Zealand Productivity Commission. (2015). *Using land for housing*, Wellington: NZ Productivity Commission, http://www.productivity.govt.nz/sites/default/files/using-land-for-housing-final-report-full%2C%20PDF%2C%204511Kb.pdf

[89] Ministry for the Environment. (2015). *A way forward for national direction*, Wellington: MfE, http://www.mfe.govt.nz/publications/rma/way-forward-national-direction

2.4 Addressing Urban Mobility Challenges

Overview. New Zealand is addressing the challenges of rural-urban population movement, return migration, immigration, urban area growth, limited housing stock, changing land use, increased vehicle fleet, growing freight, airport and seaport traffic, international tourism flows, everyday congestion and transport demand pressures, oil supply/price fluctuations, climate change and projected sea level rise, infrastructure integration and digitisation of mobility systems in its four largest cities. An integrated relationship between transport and land use is fundamental in addressing urban mobility challenges in the 21st century. This relationship is mainly influenced by the provisions of land use legislations - the Resource Management Act 1991 (RMA) and the Local Government Act 2002 (LGA) and transport legislation - the Land Transport Management Act 2003. However, these statutes focus on vertical coordination and provide little incentive for cross-sectoral horizontal collaboration for transport services and infrastructure provision.[90] This integration is even more important in NZ cities due to decentralised housing and employment.[91]

Land use and transport integration. Land use and transport integration is a central theme of the Auckland (Spatial) Plan and the proposed Auckland Unitary Plan that encourages higher-density, mixed-use development alongside good quality public transport corridors.[92] However, there is still a path dependency,[93] which creates institutional inertia[94] and tensions in central local relationships when addressing urban mobility challenges. For example, the central government is investing in seven motorway projects, the 'Roads of National Significance (RoNS)', five of which are in Auckland, Wellington and Christchurch. Once RoNS are built, they will encourage car travel and support development in greenfield areas, ultimately increasing congestion and greenhouse gas (GHG) emissions. National level policy guidelines, clear mechanisms, evaluation criteria and procedures are required to achieve land use and transport integration in NZ cities.[95]

Sustainable mobility solutions. Historically, transport planning in New Zealand focused on the narrow singular objective of enhancing mobility by relieving congestion. New Zealand ratified the UN Framework Convention on Climate Change in 1993 and the Kyoto Protocol in 2002, and passed the Climate Change Response Act in 2002 and the RMA in order to encourage renewable energy use. Regional councils took on the provision of public transportation after the liberalisation of rail and loss of intercity trains in the 1990s and now produce regional strategies for sustainable transport development in 6-year Regional Land Transport Plans. The focus is changing through long-term sustainable land use planning to create densities along public transport corridors (which are vital to increased public

[90] Productivity Commission (2015). Better urban planning, issue paper. Wellington. http://www.productivity.govt.nz/sites/default/files/better-urban-planning-issues-paper.pdf (accessed in March 2016).
[91] Laird, P., Newman, P., Bachels, M. and Kenworthy, J. (2001). Back on track: Rethinking transport policy in Australia and New Zealand. Sydney: UNSW Press.
[92] Auckland Council. (2012). Auckland Plan. Auckland: Auckland Council.
[93] Imran, M. (2014). Metro transport planning and governance in Auckland, in Gleeson Brendan & Beza Beau (Eds.), The Public City, Melbourne: Melbourne University Press, pp. 195-209.
[94] Hickman, R., Austin, P. and Banister, D. (2014). Hyperautomobility and governmentality in Auckland. Journal of Environmental Policy & Planning, 16(3). 419-435.
[95] Imran, M. and Pearce, J. (2015). Auckland's first spatial plan: Ambitious aspirations or furthering the status quo?. Cities, 45, 18-28.

transport patronage), and initiating Urban Cycleways programmes[96] (thus reducing car travel).

Indigenous involvement and challenges. One third of the national resident population, and about one quarter of the Indigenous Māori population, live in the largest city, Auckland. Māori people report exclusion from decision making in Auckland transport and community planning, despite the Land Transport Management Act 2003 requiring cultural representation. Māori families also experience transport disadvantage, are car-dependent and are exposed disproportionately to differential mobility challenges of this city of 1.5 million people. Since 84% of Māori peoples live in urban areas, most Māori have to travel to meet cultural obligations on peri-urban tribal lands.[97] As a case of emergency response, Māori reported transport disadvantage during the 2010-12 Christchurch earthquakes.[98]

New policy direction. Political leadership is important to generate constructive debate in setting a new policy direction to address urban mobility challenges. Transport problems and their solutions became a central topic in the election campaigns and afterward in the spatial plan (the Auckland Plan) and the development control plan (the Auckland Unitary Plan). Initially, politics at the central and local government levels impeded the coordination of public transport investment, for example in the City Rail Link (CRL) project. But a single voice from Auckland's Mayor compelled central government to invest in the CRL, a flagship project of the Mayor of Auckland to address mobility challenges in the 21st century. Moreover, the central government and the Auckland Council launched a transport alignment project for a long-term strategic approach to transport investment in Auckland. The idea of having one Mayor and Council, as in the Auckland governance reforms, was rejected in the Wellington region, but different councils (municipalities) are working together to achieve enhanced coordination on an integrated transport solution and in developing mechanisms for lobbying central government for transport funding to address mobility challenges. Indigenous Māori peoples must have iwi representation in all Regional Land Transport Committees with recognition of the importance of sustainable urban mobility to health and wellbeing through culturally significant activities and environments. Transport networks must transition to low carbon, renewable energy and digital infrastructure to grow with population projections, be protected and resilient to disruptive events, and be equitably accessible in civil defence emergency management.

2.5 Improving Technical Capacity to Plan and Manage Cities

Overview. New Zealand's technical capacity to plan and manage cities is largely constrained by a neoliberal philosophy that has reduced planning substance to

[96] Ministry of Transport (2016). Urban Cycleways Programme. http://www.transport.govt.nz/land/land-transport-funding/urban-cycleways/ (accessed in March 2016).
[97] Raerino, K., Macmillan, A. K., & Jones, R. G. (2013). Indigenous Māori perspectives on urban transport patterns linked to health and wellbeing. Health and Place, 23, 54-62; Statistics New Zealand, New Zealand in Profile 2015.
[98] Lambert, S. (2014). Indigenous Peoples and urban disaster: Māori responses to the 2010-12 Christchurch earthquakes. Australian Journal of Disaster and Trauma Studies, 18(1), 39-48.

'managing' the adverse effects of activities on the bio-physical environment. Whilst this greening of planning was no doubt necessary, it has come at the expense of social and economic considerations such as regional development, urban design and safety concerns arising from, for example, natural and man-made hazards.[99]

Resource Management Act. The rather narrow bio-physical environmental focus of planning post-Resource Management Act (RMA) has meant that challenges arising from economic decline in the regions and increased demand for residential housing in the main urban centres of Auckland and Christchurch have been difficult to address[100]. The latter has actually required additional legislation to enable central-local government partnerships to provide affordable housing in special housing areas whilst proposed amendments to the RMA seek to streamline processes of decision-making and increase the speed with which councils assess and decide the outcome of applications. These changes notwithstanding, central government's direction to local government for addressing affordability issues in Auckland and Christchurch has been to demand – simplistically - the removal of barriers to land supply.

Planning post-Canterbury Earthquakes. The inability of New Zealand's planning framework to manage other major urban issues was also highlighted in post-earthquake Canterbury where it was seen that a recovery process integrating social, environmental, economic and cultural spheres required new legislation (the Canterbury Earthquake Recovery Act of 2011) and plans, new government departments and new organisations.[101] While it could be argued that recovery has unique characteristics, a case could also be made that the disaster simply exposed deficiencies that plague planning legislation and practice in this country, albeit with less urgency.[102]

Improving capacity to plan cities. Consequently, in improving our capacity to plan and manage cities, traditional and generic professional skills like project and personal time management remain important[103], but being able to quickly gather, analyse, interpret and explain information (with an emerging emphasis on 'big' quantitative data) has become crucial. The need to develop these skill sets may have come at the expense of other types of expertise, particularly around economic development and community engagement, though the ability to work with Māori has become central to planning across all levels of government. In order to improve the planning and management of New Zealand's cities, a strong ethical understanding of the planner's role and the purpose of the profession is needed in order to enable the range of voices, and concerns about sustainability and resilience, to be heard and valued. The planning profession has responded with greater emphasis on Continuing Professional Development and tighter procedures for accreditation of qualifications. University programmes reflect regional needs and specialities. Employer and court recognition of its status has seen membership of the New

[99] Vallance, S. (2007). The Sustainability Imperative and Urban New Zealand. A Thesis Submitted in Fulfilment of the Requirements for a Doctor of Philosophy Degree at Lincoln University.
[100] Vallance, S., Perkins, H.C, Moore, K. (2005). The results of making a city more compact: neighbours' interpretation of urban infill. *Environment and Planning B: Planning and Design*, 32 (5), pp. 715 – 733
[101] Saunders, W., Vallance, S., and Mamula-Seadon, L. (2015). Land-use planning following an earthquake disaster. In M. Beer, E. Patelli, I. Kougioumtzoglou and S. Au. (Eds.). Encyclopaedia of Earthquake Engineering. Springer, Berlin, pp. 1-20,
[102] Vallance, S. (2014). Living on the edge: A phenomenology of sprawl. International Journal of Urban and Regional Research 38, 6, pp. 1954–1969 [IF 1.672]
[103] For types of generic skills see, for instance, Reeves, D. (2016) *Management Skills for Effective Planners: A Practical Guide.* London: Palgrave. P. 266.

Zealand Planning Institute increase at a rate of 4-5% annually for the last six years. The RMA also requires those making significant planning decisions, including politicians, to complete a certification programme every five years. Local government officials have established national special interest groups to enable their technical and planning experts to share the latest developments in their fields. A government supported website[104] enables best practice guidance developed by industry professionals to be openly shared with the public and practitioners. Whether these result in improvement in implementation and outcomes will be a true test of planning capacity.

2.6 Chapter Summary and Issues that could be addressed by the New Urban Agenda

While dominated by the Resource Management Act 1991, land use and urban planning are also shaped by legislation such as the Local Government Act 2002 and Land Transport Management Act 2003. The RMA has a biophysical emphasis that accounts for human development needs, but is also seen as an Act that facilitates development while underplaying the need to work within biophysical limits. These are not necessarily mutually exclusive views.

In the former view, the concern is that there is an over-reliance on the technical aspects of assessing environmental externalities to guide decision-making. This leads to some perverse outcomes, and contributes to tension between different levels of local and central government. This technocratic approach not only allows planners to avoid addressing socially beneficial outcomes, but may prevent them doing so.

Equally, wording in the Act is insufficient in itself to lead to ecologically beneficial development. This is partly because of how the term *environment* in the RMA has been interpreted in plans and through the courts. One application of the term could have allowed for the proactive management of biophysical values while also allowing for positive social and economic outcomes. However, this depends upon regional and local plans and policies, which in turn are interpretations of how to give effect to the RMA. In effect, many councils ended up being reactive and trying to mitigate negative outcomes rather than facilitate positive ones. Meanwhile, court decisions reinforce the discretion of local government to trade off ecological values against economic and/or social values.

The outcome has been, in some particular instances, an unjustifiable impost on development resulting from attempts to control marginal issues, while at the same time leading to net ecological degradation of such things as water quality and native biodiversity.

This can be balanced in part by the creation of good plans, sufficiently resourced, and the promulgation of statutory national policy statements and environmental standards. Indeed, there has been an increase in these in recent years. However,

[104] http://qualityplanning.org.nz/

planning outcomes have tended to rely heavily on legal challenges by councils and community and/or national voluntary agencies setting precedence. This produces a rather ad hoc approach to facilitating development while protecting the urban social fabric and ecosystems, and adds uncertainty to those investing in development. Also unaddressed has been the economic decline in regions, resulting in intensified housing and transport problems in centres like Auckland while assets remain relatively underused elsewhere.

Due in part to legislative amendments, there is limited integration between the RMA, LGA and LTMA. This is despite a fundamental need to, for example, effectively integrate transport, land use and residential and business development. LGA amendments that included sustainable development provisions were subsequently removed, and LTMA changes also removed legislative support for greater consideration of transport implications beyond efficiency and cost.

This dovetails into central-local government tensions over where decision making should reside. For example, the creation in 2010 of a single unitary authority for the country's biggest city, Auckland, with the associated loss of city and district councils, was driven by central government. At the time many communities feared a loss of influence over local issues. On the other hand, provision for housing accords between central and local government, creating mutually supportive partnerships enabling fast-tracking of developments, arose out of this amalgamation.

One outcome of the Auckland amalgamation was the creation of integrated plans addressing transport, housing, employment and environmental problems, and promoting healthy lives for children and young people. Benefits include improvements in urban form and transport in some locations, and (belatedly) a stronger local lobby with which to engage central government on some issues. This has led to some significant progress on certain programmes such as particular aspects of public transport, while far slower has been improvements in regional transport and, in particular, housing affordability.

Aligning central and local government thinking on both issues has been fractious, with central government control over funding and financial levers, such as tax structures, heavily influencing local outcomes. House ownership rates continue to drop as rents increase, and ease of mobility over much of the city is declining. Also compromised have been periodic attempts to create more sustainable land use-transport systems around urban growth nodes. This has evolved, but in a less co-ordinated way and more slowly than intended. This also reinforces historic trends toward sprawl, creating difficulties when trying to address such things as transport emissions affecting climate change (see Chapter 3).

This has been particularly the case in Auckland. A different dynamic in the country's capital, Wellington, has led to more strategic development earlier, though not without controversy. Attempts to create a similar unitary authority as Auckland did not succeed.

The series of earthquakes that devastated Christchurch during 2010 and 2011 stimulated a broad engagement between regulatory authorities and the community

to identify development options. It also highlighted an existing tendency towards central government management and a disenfranchising of communities. The inability of New Zealand's planning framework to manage major urban issues was also exposed. On the other hand local iwi and hapū were included in decision-making in ways never before promulgated, and grassroots transitional initiatives were very successful.

The importance of local community ownership of urban development is captured in part by the global renaissance in urban and peri-urban agriculture. There is an increased interest in New Zealand cities in consuming local and seasonal produce, including food grown within the urban-peri-urban area. Along with evolving food networks, councils are creating policies to support access to healthy and affordable local food, including some support for community gardens, and protecting agricultural land.

Difficulties arise when trying to provide sufficient land for housing as populations grow, particularly in Auckland. Influential advice from government-backed commissions, and central government preference, is to ensure sufficient land is available outside current urbanised footprints for housing. This may result in keeping down house purchase prices (a strongly contested argument in itself), but may also compromise the protection of productive agricultural land. In addition, as noted in Chapter 3, lacking is a clear, enforceable and consistent process for including full infrastructure and environmental costs of opening up peri-urban land for housing. The tendency is to find solutions to housing that entrench unsustainable long-term trends.

Chapter 3: Environment and Urbanisation

Two urban environmental issues have been omitted from this chapter, namely urban ecosystems and urban ecological footprints, due to space restrictions. Please see "An Afterword: New Zealand's Urban Agenda" for a brief commentary.

3.1 Addressing Climate Change

Introduction and overview of New Zealand's energy issues. It is now widely accepted that anthropogenic emissions of greenhouse gases (GHGs) are responsible for enhancing climate change.[105] This section focuses on steps being taken to address these issues, and prepare for the impacts of climate change, as related to New Zealand's urban systems.

Agriculture and energy generate almost 90% of New Zealand's GHG emissions.[106] In terms of urban systems, as of 2014 (the most recent estimates) energy accounted for 39.8% of national emissions, and of that figure, road transport contributed almost 40%. This confirms earlier predictions of on-going transport emissions increases[107,108] consolidating existing trends: between 1990 and 2014, emissions from the energy sector increased 35.5%, with emissions from road transport increasing 71.6% over that period.[97]

New Zealand's largest city, Auckland, with about 1.6 million people, has a third of the country's population. Due to its adopting an American sprawl rather than British intensification urbanisation model[109] it is spread over a relatively large area. One consequence is that about 35% of the city's emissions come from land transport compared to the rest of the country at about 20%. Overall the city is on track to increase total GHG emissions by up to 46% by 2025, contrasting with council goals of a 40% reduction on 1990 emission levels by 2040.[110]

Currently, national emissions reductions policy is not focused on transport. Partly this is because New Zealand is in the unusual position for an industrialised country of about half its emissions coming from the agriculture sector (48.8% in 2014).[97] But with about 85% of New Zealanders urbanised (in contrast with just over half on average globally)[111] urban development provides major opportunities to reduce

[105] Intergovernmental Panel on Climate Change (2014), Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)] (IPCC, Geneva, Switzerland, 2014) esp at 1.2 & 1.3.1, available at http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf

[106] Ministry for the Environment. (2016) *New Zealand's Greenhouse Gas Inventory 1990-2014.* Wellington: New Zealand Government

[107] Ministry for the Environment (2011) *Environmental Stewardship for a Prosperous New Zealand: briefing for the incoming Minister for the Environment and Minister for Climate Change Issues.* Wellington: Ministry for the Environment.

[108] MoT (2011). *Briefing to the incoming Minister of Transport: policy challenges and upcoming decisions.* Wellington: Ministry of Transport.

[109] Gunder, M. (2004) "Shaping the planner's ego-Ideal: a Lacanian interpretation of planning education" *Journal of Planning Education and Research.* 23, 299-311.

[110] Auckland Council 2014 Low Carbon Auckland: Auckland's energy resilience and low carbon action plan. Auckland Council: Auckland

[111] See United Nations Population Fund estimates at http://www.unfpa.org/urbanization

emissions. Note also that New Zealand generates about 80% of its electrical energy from renewables[112] making transport a primary focus for emissions reductions compared with most other industrialised countries.

Hence New Zealand should be considering, among other things, locating residential developments closer to employment, improving public transport and walking and cycling networks, creating systems to facilitate the use of electric vehicles, and increasing energy efficiency of buildings. A recent Royal Society of New Zealand publication outlined how such generic ideas might be adopted and adapted locally,[103] and Auckland Council (among other local bodies) has also identified a strategy to reduce emissions.[113] What is missing is central government embracing an integrated approach to tackling climate change.

An example is the lack of auditing of road transport and urban development for GHG emissions implications. In terms of transport, this is because funding mechanisms require effectiveness and efficiency but not emissions projections estimates.[114] In terms of urban development, Auckland is focusing on increasing its housing stock through intensification and sprawl, but there is no formal mechanism for including emissions in any cost-benefit analysis. Consequently, investment does not embed emissions implications and may exhibit a bias against intensification. This divorces Auckland Council's non-statutory emissions reduction strategy[101] from development planning processes, putting in doubt any real prospect of meeting emissions reduction targets. Government intervention is needed to require councils to actively address emissions, something which is discouraged under current regulation.[115]

Such a regulatory and planning environment does not necessary prevent councils embracing progressive initiatives: for example, Auckland has improved public transport and cycling networks, and introduced "park and ride" type facilities adjacent to rail, bus and tram networks, and fast 'T2' and 'T3' traffic lanes for public transport and cars carrying more than one person. However, recent government agreement to consider congestion charging follows years of debate and indicates an on-going reluctance by central government to embrace initiatives targeting meaningful emissions reductions.

Imaginative use of economics, law and policy can reduce regulatory and economic barriers, and provide the best framework conducive to addressing climate change. One example is encouraging greater uptake of renewable energy in the urban and peri-urban environment.[116] While as noted New Zealand's high use of renewable energy does not make this a priority in terms of emissions reductions, it could still be a significant contribution to establishing a network of electric vehicles. This is associated with the problem of increased electricity demand in cities such as Auckland being largely met by non-renewable generation due to the peculiarities of how the power network is configured. Setting up a distributed renewable energy

[112] RSNZ 2016a *Transition to a low carbon economy for New Zealand* Wellington Royal Society of New Zealand, Wellington.
[113] Auckland Council 2014 Low Carbon Auckland: Auckland's energy resilience and low carbon action plan. Auckland Council: Auckland
[114] Knight-Lenihan, S (2015) "Benefit cost analysis, resilience and climate change" *Climate Policy* DOI: 10.1080/14693062.2015.1052957
[115] Harker, J, Taylor, P & Knight-Lenihan S (2016) "Multi-level governance and climate change mitigation in New Zealand: lost opportunities" *Climate Policy* DOI: 10.1080/14693062.2015.1122567
[116] See, eg, David Grinlinton and Leroy Paddock, "The Role of Feed-in Tariffs in Supporting the Expansion of Solar Energy Production" (2010) 41(3) University of Toledo Law Review 943.

system that includes electrical vehicle recharging could be a useful contribution to lowering emissions.

Related to this, urbanisation provides efficiencies of scale for renewable energy developments (hydro, tidal, wind or solar) to be developed close to urban areas, reducing transmission loss and enhancing the economic viability of such developments. In addition, the aggressive use of planning controls and building standards can require new buildings – and even older buildings through retrofitting – to achieve higher levels of thermal insulation and even energy self-sufficiency through rooftop grid-integrated solar photovoltaic electricity systems and rooftop water heating units,[117] as well as small scale wind turbines.[118]

While many of the above initiatives have received greater attention through law and policy in New Zealand in recent years,[119] equally, there has been slow progress on altering building regulations to encourage gradual improvements in energy efficiency standards, and a reluctance to significantly and consistently subsidize such things as the retrofitting of domestic building insulation.

Managing Emissions. New Zealand manages its atmospheric greenhouse gas emissions through an emissions trading scheme (NZETS) administered by the central government. Adapting to the impacts of climate change is predominantly the responsibility of local government.

New Zealand's current greenhouse gas emissions reduction target is to achieve five per cent below 1990 levels by 2020. Prior to the December 2015 21st UN Framework Convention on Climate Change Conference of the Parties in Paris (COP 21), the country committed to a post-2020 target of 11 per cent below 1990 levels by 2030. Targets are to be met through domestic emission reductions, the removal of carbon dioxide by forests, and participation in international carbon markets and global agricultural greenhouse gas emission reduction research.[120]

Currently lacking are the details of how the 2030 commitment will be reached using existing and any future emissions reductions strategies. In addition, there is limited discussion on how sequestration, being a short-term solution that buys time, contributes to avoiding longer-term net atmospheric carbon increases.

Prior to COP 21, figures showed an increase to 2013 of 21% in gross emissions.[121] Up to 2013, the total population increase was 26% and emissions intensity (emissions/unit GDP) decreased 33%.[122] Emissions growth occurred mainly from

[117] See, for example, The Spanish Technical Building Code introduced in 2006 which places minimum requirements for solar thermal water heating and electricity production for buildings: Royal Decree 314/2006 of 17 March 2006, available in English at http://www.estif.org/fileadmin/estif/content/policies/downloads/CTE_solar_thermal_sections_ENGLISH.pdf

[118] For up to date data on renewable energy development globally, including grid-connected solar PV developments, see REN21, Renewables 2015 Global Status Report (REN21 Secretariat, Paris, 2015), at 20. Available at http://www.ren21.net/status-of-renewables/global-status-report/

[119] Geothermal, hydro and wind energy are highly developed in New Zealand: Kenneth Palmer and David Grinlinton, "Developments in Renewable Energy Law and Policy in New Zealand" (2014) 32(3) Energy & Natural Resources Law 245

[120] Ministry for the Environment, including links to a 2015 discussion document, at www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand%E2%80%99s-post-2020-climate-change-target.

[121] Ministry for the Environment. (2015) New Zealand's Greenhouse Gas Inventory 1990-2013. Wellington: New Zealand Government.

[122] New Zealand's intended nationally determined contribution, 7 July 2015.

agricultural activity, various industrial processes, and of particular relevance to urban environments, road transport.

Successive advice since 2011 from the Ministries of Transport and Environment notes the current New Zealand Emissions Trading Scheme (NZETS) structure will not incentivise reductions in transport fuel consumption. Current land transport funding mechanisms do not require quantification of the emissions implications of road transport investment. Road, rail and coastal shipping are not considered in an integrated way, limiting the ability to identify which mode generates the least CO_2 emissions, and therefore could be supported.[123]

Further to encouraging alternative transport modes, most electric vehicles are already exempt from road user charges and the government is looking at ways to further encourage their use as a major contribution to reducing transport emissions. The government has recently significantly boosted investment in public transport (particularly in New Zealand's largest city, Auckland) and cycling facilities, although from an historically very low base, and many local councils have equally significantly invested in urban public transport and cycling facilities.

Legislative modifications since 2004 require local government responses to climate change effects while leaving emissions management to central government. This is to create a consistent and justifiable national emissions reductions response while recognising adaptation needs to be place-specific. However, there is a lack of clarity over how to incorporate into planning documents threats of climate change-exacerbated coastal erosion, groundwater intrusion and flooding. Place-specific predictions based on current climate modelling may influence consent conditions, but such modelling may not be sufficiently robust to be included in statutory plans. This leaves unclear where liability falls for any subsequent damage to property or loss of life associated with, or exacerbated by, climate change impacts.

Climate Change Impacts. As noted, about 85% of New Zealand's population is urbanised, with three major cities, Auckland, Wellington and Christchurch containing over two thirds of the population of all urban areas. These cities are in different climate zones and face different risks and challenges due to climate change.

Global emissions projections and consequent climate change impacts sit within a broad range. Equally, average New Zealand temperature projections are in a 1-5 ^{o}C range. Average rainfall could drop about 10% in the east and north, and increase by about the same per cent in the west, and more in the far south. This will exacerbate existing flooding and drought. Extreme heavy rainfall events are expected to increase by a factor of up to four, particularly in those regions expecting an increase in average rainfall. Sea level rise is set to increase 0.3 to 1.1 metres by 2100, relative to 1986-2005. This might be conservative, depending upon what happens to the Antarctic ice sheets.[124]

[123] Limited research on large volume cargo transport indicates coastal shipping and rail are significantly more efficient than bulk road cargo transport; see: Cenek, P.D., Kean R.J., Kvatch I.A., & Jamieson N.J. (2012). Freight transport efficiency: a comparative study of coastal shipping, rail and road modes. NZ Transport Agency research report 497. 61pp. However, note there is a heavy vehicle fuel efficiency programme currently underway.

[124] Royal Society of New Zealand (2016) Climate change implications for New Zealand, 69pp

Urban impacts will include increased stormwater peak flows, more severe flooding, greater coastal inundation and erosion particularly on eastern coasts, increasing coastal groundwater intrusion, road disruptions due to flooding and tar melt, increased fire risk, disrupted potable water supply, energy outages, and the urban heat island effect.

Existing 1 in 100-year extreme coastal inundation events may occur annually in many areas by the end of the century even under the more conservative sea level rise scenario. The 1 in 100 year events may then become more extreme. Many coastal communities, including and in particular urban ones, are already vulnerable to existing groundwater intrusion, inundation and erosion patterns; this is likely to become significantly worse.[125]

Urban water supply will also be more contested. For example, rainfall may decrease in the north and east of the North Island, affecting catchments feeding dams for New Zealand's biggest city Auckland.[126] This already taps an out-of-catchment water source, the Waikato River, to ensure supply. Already water-stretched areas such as the east coasts of both the North and South Island may see urban areas compete with rural irrigation demand. Equally, all current consumption competes with ecological minimum flow and quality requirements promulgated through the 2014 National Policy Statement for Fresh Water Management, which sets ecological limits that may become increasingly difficult to meet with significant changes in water flow patterns.

To assist local government in the assessment of risk in urban areas, the National Institute for Water and Atmosphere[127] has produced an 'Urban Impacts Toolbox' that includes useful case studies. For example:

i) In the City of Wellington, the availability of potable water supply was identified as a significant vulnerability with a predicted decrease in availability of 5% and increase in demand of 1%.

ii) In Auckland, wastewater management was modelled to take account of additional flow patterns combined with aging infrastructure. It was found that the costs of improving wastewater infrastructure were approximately 3 times greater if climate change was unanticipated and that the cost implications of adapting to climate change are less than that of accounting for network ageing.

iii) In Christchurch, coastal inundation and erosion is a significant issue. The combination of sea level rise, high tide increase and storms could result in an increase in total buildings flooded of +16% by 2040 and +31% by 2090.

iv) In Dunedin the increasing frequency of very high tides will lead to frequent ponding and inadequate storm water drainage in South Dunedin.

[125] Parliamentary Commissioner for the Environment (2015) Preparing new Zealand for rising seas: certainty and uncertainty. Wellington: 92 p.
[126] Royal Society of New Zealand (2016) Climate change implications for New Zealand, 69pp
[127] National Institute for Water and Atmosphere. Urban Impacts Toolbox https://www.niwa.co.nz/node/102501accessed 19 March 2016

Longer term issues that will impact on urban areas, but have been less well quantified, include electricity load shedding (planned outages) due to the dependence on New Zealand for hydro power. The hydro lakes are dependent on snow and glacial melt during the dry months. Decreased snow and glacial retreat combined with an increased demand for water for irrigation may result in significant water shortages for power generation.[128]

Peak demand for electricity in urban areas is commonly supplied from non-renewable resources. Relatively poor criteria for the energy efficiency of buildings[129] together with an increase in the use of air-conditioning,[130] are hindering progress towards an increase of renewable energy in the electricity generation mix.

3.2 Disaster Risk Reduction

Disasters in New Zealand. Disasters refer to both situations and processes involving hazardous events that have harmful consequences for people's lives and livelihoods. In New Zealand, most events are of small scale and occur in rural areas. These frequent small events are however overshadowed by the impact of rarer but larger events in urban areas. In both cases, places and people most affected are often those located at spatial and social margins. Vulnerability to disaster indeed reflects access to means of protection and, ultimately, how power and resources are shared within society.

History of disaster risk reduction (DRR) in New Zealand. Historically, policies and practices geared towards reducing the risk of disasters in New Zealand have focused on large and brutal events (at the detriment of lingering and/or gradual threats), and have been seen as battles against which military tactics should be deployed. As a consequence, DRR, including emergency management, has long consisted of enhancing preparedness and responding to the event through top-down and command-and-control strategies led by local councils with the support of emergency management groups, the army and police as well as fire services.

Recent developments. Over the past decade and a half, however, this has been changing towards more proactive and context-specific approaches designed with local people to prevent hazards, address their vulnerability and enhance their capacities. The introduction of the Civil Defence and Emergency Management (CDEM) Act[131] in 2002 was a significant step forward. Nowadays, New Zealand's legislation, including the National Civil Defence Emergency Management Plan of 2015[132], is designed as 'enabling' rather than overly prescriptive, and much of the implementation and regulation of DRR activities is devolved to local territorial authorities (TA's). This creates an appropriate level of flexibility and adaptability, however, can also create inconsistent practices even within regions if they are

[128] Byrd, Hugh and Matthewman, Steve (2013) Renewable energy in New Zealand: the reluctance for resilience. In: Renewable energy governance. Springer. ISBN 978-1-4471-5594-2
[129] Byrd, Hugh and Leardini, Paola (2011) Green buildings: issues for New Zealand. Proceedia Engineering, 21 . pp. 481-488. ISSN 1877-7058
[130] Byrd, Hugh (2012) The case for policy changes in New Zealand housing standards due to cooling and climate change. Journal of Environmental Policy & Planning, 14 (4). pp. 360-370. ISSN 1523-908x
[131] http://www.legislation.govt.nz/act/public/2002/0033/latest/DLM149789.html
[132] http://www.legislation.govt.nz/regulation/public/2015/0140/latest/DLM6486453.html?src=qs%20

covered by multiple TA's. More recently, a National Disaster Resilience Strategy is being designed in agreement with the priorities of the Sendai Framework for Disaster Risk Reduction and the lessons learnt from the 2010/2011 Canterbury earthquakes. In parallel, significant research projects are being conducted under the umbrellas of the National Science Challenge on Resilience to Nature's Challenges[133], the Natural Hazards Research Platform[134] and the Centre of Research Excellence on Earthquake Resilience.[135]

DRR Stakeholders. In such a context, emergency management organisations (for early warning systems, preparedness and response) and local councils (for building strengthening, engineering solutions and land-use planning), are still the dominant actors of DRR, along with the Earthquake Commission in charge of providing insurance. However, many civil society organisations, including Non-Government Organisations, the New Zealand Red Cross and people's associations have gained prominence to address people's vulnerability and strengthening their capacities through increasing bottom-up initiatives.

Inclusiveness in DRR. The progressive implication of a larger array of stakeholders has allowed for more inclusiveness, especially of minority groups such as elderly, children and people with disabilities, and for an increasing recognition that these people are not only vulnerable but also display a wide range of capacities in facing disasters. These capacities now provide a strong rationale for fostering more genuine participation in DRR. There is, for example, growing recognition of marae and iwi contribution to official DRR planning, especially recognising their powerful capacities that include indigenous knowledge, skills and resources. In practice, though, people's participation in DRR often, not always, remains tokenistic and is designed to legitimate and sustain outside actors' initiatives.

Perspectives and recommendations. Neoliberal government policies and the hollowing out of the state continue to limit access to resources and social protection, weaken livelihoods and ultimately enhance the overall society's and people's, especially the most marginalised, vulnerability to disasters, thus undermining DRR efforts. Therefore, despite major progresses, much still needs to be done to address the root causes of disasters and share power towards genuine participation of those at risk. This requires further integration of top-down and bottom-up actions through increasing dialogue between stakeholders.

3.3 Reducing Traffic Congestion

Overview. Reducing traffic congestion is an important objective of transport planning in New Zealand cities. Congestion costs the Auckland economy $1.25 billion per year[136] and contributes 38% of the city's total carbon emissions.[137] The congestion in NZ cities is dealt with by travel demand management policies, the

[133] http://resiliencechallenge.nz
[134] http://www.naturalhazards.org.nz
[135] http://www.quakecore.nz
[136] Wallis, I., & Lupton, D. (2013). The costs of congestion reappraised. Wellington, New Zealand: NZ Transport Agency research report 489.
[137] Auckland Transport (2011). Auckland transport annual report 2011. Auckland, New Zealand: Author.

provision of a better public transport system and encouraging greater use of walking and cycling. The travel demand management policies include demand side policies to reduce or manage travel such as intensification[138], urban design initiatives[139], and workplace travel planning.[140] For example, the Auckland Plan's aim to contain the majority (60 - 70%) of housing-employment development within built-up areas ultimately has the potential to reduce traffic congestion, emissions, and related externalities.

Encouraging public transportation. Supply side policies include greater investment in quality public transport infrastructure and establishing an integrated public transport network[141] in metropolitan cities of NZ. For example, significant investment in public transport in Auckland, Wellington and Christchurch has taken place in the last decade. The Auckland rail network has been electrified, a new fleet of electric trains has been bought, stations refurbished, a $3 billion investment in City Rail Link (CRL) is agreed in principle, together with investment in the country's first and only Bus Rapid Transit system (BRT, locally called the Northern Busway). Recently, the Auckland Transport introduced the HOP card[142] (a reusable prepay smart card), which is expected to make travel easier to change from one mode to another, reduce the fare and boarding time and help in integrating the public transport network. Similarly, the Wellington rail network has been extended and the fleet has been modernised. As a result of all these efforts, vehicle kilometres travelled (VKT) have declined from 22,036 to 21,408 million kilometres between 2007 and 2012 in major urban areas.[143] In contrast, a sharp growth in public transport (especially in respect of the rail network) has been noted in Auckland and Wellington.[144] For the future, a clear target has been set: to double the patronage of public transport by 2022 in Auckland.[145] In addition, the urban cycleways programme was launched[146] at the national level to explore alternative modes to reduce traffic congestion. However, funding for this has so far been modest.

Challenges. Currently, NZ cities are debating the promotion of electric vehicles[147] and various forms of congestion charges[148] to reduce GHG emissions and energy consumption and to provide alternative funds for future development of public transport. Regardless of these debates, there is little progress on these policies. In

[138] See Chapter 11 of the Auckland Plan which aims to increase the proportion of people living within walking distance of frequent public transport stops from 14% (2011) to 32% by 2040.
[139] Auckland Design Manual and information about the Design Statement for resource consent applications are available at http://www.aucklanddesignmanual.co.nz/ (accessed March 2016).
[140] Information about the Workplace travel planning is available at https://at.govt.nz/driving-parking/commute/business-travel/workplace-travel-planning/ (accessed March 2016).
[141] The Auckland Plan (2012) aims to achieve a transformational shift by 'far greater use of public transport and a stronger focus on planning, developing, and operating the entire transport network as an integrated system' (p. 33).
[142] Auckland Transport HOP card https://at.govt.nz/bus-train-ferry/at-hop-card/ (accessed June 2016).
[143] Ministry of Transport (n.d.) Transport volume: Vehicle travel. Available at http://www.transport.govt.nz/ourwork/tmif/transport-volume/tv028/ (accessed June 2016).
[144] Various patronage data are compiled at http://transportblog.co.nz/tag/patronage/
[145] The Auckland Plan aims to double public transport patronage from 70 million trips in 2012 to 140 million trips by 2022.
[146] Ministry of Transport (n.d). Urban cycleway programme at http://www.transport.govt.nz/land/land-transport-funding/urban-cycleways/#LongburnCycleway (accessed March 2016).
[147] Ministry of Transport (n.d). Electric vehicles at http://www.transport.govt.nz/ourwork/climatechange/electric-vehicles/ (accessed March 2016)
[148] Auckland Council (2013). Funding Auckland's transport future: Alternative funding for transport, public discussion document. Available at http://www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/localboards/mangereotahuhulocalboard/meetings/mangereotahuhulbagatt220130612.pdf (accessed March 2016)

short, a combination of policies has affected the congestion level in Auckland, at least during the morning peak, which has dropped to 2004 levels[149]; and it is predicted that peak-hour congestion on motorways will be relatively stable in the next 30 years.[150] However, total daily travel in Auckland will increase[151], causing an increase in inter-peak car travel.[152]

3.4 Air Pollution

Air Quality in New Zealand. Air quality in New Zealand is generally good due to a low population density, limited industrial activity and isolated location. However, periods of poor air quality have been attributed to a high reliance on an elderly vehicle fleet, road traffic congestion, urban sprawl, limited use of public transport and low preference for active commuting, and domestic wood burning emissions. New Zealand also has a relatively poor housing stock by OECD standards,[153] with many homes inadequately insulated, leading to interventions aimed at reducing emissions to improve both indoor and outdoor air quality.[154,155,156,157]

Guidelines and Policies. In 1992, the Ministry for the Environment published the New Zealand Ambient Air Quality Guidelines[158] (with an update released in 2002[159]) to provide advice to regional authorities about managing air under New Zealand's Resource Management Act 1991 (RMA).[160] In 2009, National Environmental Standards (NESs)[161] were introduced in which regional authorities had for the first time a legal obligation to act on any breaches under their jurisdiction. The Smoke-Free Environments Act 1990[162] was introduced to restrict the smoking of cigarettes in public places, including schools, and in 2003, was amended to include all indoor workplaces including bars and restaurants.[163]

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[149] See Figure 2 available at http://www.transport.govt.nz/about/publications/annualreports/annualreport201112/annualreport201112measuringprogress/
[150] P. 48 at http://www.transport.govt.nz/assets/uploads/land/documents/auckland-transport-alignment-project-foundation-report.pdf
[151] P. 32 at http://www.transport.govt.nz/assets/uploads/land/documents/auckland-transport-alignment-project-foundation-report.pdf
[152] P.48-50 at http://www.transport.govt.nz/assets/uploads/land/documents/auckland-transport-alignment-project-foundation-report.pdf
[153] Howden-Chapman, P., Viggers, H., Chapman, R., O'Dea, D., Free, S and O'Sullivan, K. (2009) Warm homes: Drivers of the demand for heating in the residential sector in New Zealand. Energy Policy, 37(9), 3387-3399. doi:10.1016/j.enpol.2008.12.023
[154] Nelson City Council (2008). The Nelson Air Quality Plan Retrieved from: http://nelson.govt.nz/council/plans-strategies-policies/strategies-plans-policies-reports-and-studies-a-z/nelson-air-quality-plan-2/
[155] Auckland Council (2012) Enjoy the heat, not the smoke! How to operate woodburners and domestic fires to minimise air pollution and maximise heat and energy efficiency. http://www.aucklandcouncil.govt.nz/EN/environmentwaste/pollution/Documents/airqualitybrochure2012.pdf
[156] Auckland Regional Council (2009) State of the Auckland Region 2009: State of the environment and biodiversity – Air (pp. 94-119) ISBN 978-1-877540-45-5. http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/technicalpublications/Pages/stateaucklandregionreport2010.aspx
[157] Environment Canterbury (2011). Canterbury Natural Resources Regional Plan Chapter 3: Air Quality. Prepared under the Resource Management Act 1991. http://ecan.govt.nz/publications/Pages/chapter-3-nrrp.aspx
[158] Ministry for the Environment (1994) Ambient Air Quality Guidelines. Wellington. Ministry for the Environment.
[159] Ministry for the Environment. (2002) Ambient Air Quality Guidelines: 2002 Update. Retrieved from http://www.mfe.govt.nz/publications/air/ambient-air-quality-guidelines-2002-update
[160] Ministry for the Environment. (1991) Resource Management Act. Retrieved from http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html
[161] Ministry for the Environment. (2009) Resource Management (National Environmental Standards for Air Quality) Regulations 2004. Retrieved from http://www.legislation.govt.nz/regulation/public/2004/0309/latest/DLM286835.html?search=ta_regulation_R_rc%40rinf%40rnif_an%40bn%40rn_25_a&p=3
[162] Ministry of Health (1990) Smoke-Free Environments Act (1990). Parliamentary Counsel Office New Zealand Legislation. Retrieved from: http://www.legislation.govt.nz/act/public/1990/0108/latest/DLM223191.html
[163] Ministry of Health (1990) Smoke-Free Environments Amendment Act (2003). Parliamentary Counsel Office New Zealand Legislation. Retrieved from:

In order to reduce vehicle emissions, the government introduced the Land Transport Rule: Vehicle Exhaust Emissions 2007[164] which set standards for imported vehicles. Regular updates have been made to align it with the improving emissions standards of countries from which imported vehicles come, leading to marked reductions in emissions. Advances have also been made with regard to transport infrastructure development to promote active modes of commuting and the use of public transport.

Cultural Issues. Traditionally, Māori have had strong links with the environment, including with air. Treaty of Waitangi obligations to Māori are outlined in the Resource Management Act (e.g. Section 8 requires that the principles of the Treaty are taken into account). In the development of the Air Quality Guidelines 1992 and 2002, the Ministry for the Environment developed an approach that "considers Māori as one of the sensitive groups the health protection guideline values are aiming to protect" with a commitment to "Improve opportunity for Māori to effectively control, manage and regulate air quality within their rohe (boundaries) and according to their own cultural preferences".

Air Quality Challenges for Children. An ongoing challenge for New Zealand is improving the air quality environment experienced by New Zealand children as they remain disproportionately affected by poor air quality. Early childhood centres have traditionally been located close to heavily trafficked routes resulting in high exposures for vulnerable children who are encouraged to spend larger amounts of time outdoors. While improvements have been made in vehicle emission rates, buses on school routes remain amongst the highest emitters. High emitting vehicles could be identified with the inclusion of emissions testing as part of the warrant of fitness for vehicles. Children who walk to school are also disadvantaged as they tend to travel at the same time and on the same routes as school traffic including school buses. While changes are being made to the urban transport infrastructure to favour pedestrians (e.g. traffic light phasing), these developments could also focus on children around schools and school commute times. A ban on smoking inside cars with children would align New Zealand's legislation with many other countries across the developed world, including Australia[165] and the United Kingdom.[166] Children are disproportionately represented in the higher levels of deprivation in New Zealand and many live in substandard rental housing. The further identification and implementation of cost-effective solutions for improving the quality of the indoor environment of rental houses (e.g. though better insulation, double-glazing, ventilation systems, and economical heating options) should be carried out as a matter of urgency.[167]

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http://www.legislation.govt.nz/act/public/2003/0127/latest/DLM234940.html

[164] New Zealand Transport Authority (2007). Land-Transport Rule: Vehicle Exhaust Emissions (2007) Retrieved from: http://www.nzta.govt.nz/resources/rules/vehicle-exhaust-emissions-2007-index.html

[165] Scollo, MM and Winstanley, MH. Tobacco in Australia: Facts and issues. Melbourne: Cancer Council Victoria; 2015. Available from www.TobaccoInAustralia.org.au
Tobacco in Australia/Facts and issues: A comprehensive online resource Retrieved from: http://www.tobaccoinaustralia.org.au/chapter-15-smokefree-environment/15-6-domestic-environments

[166] UK Government (2015) New Rules about tobacco and e cigarettes and smoking. Retrieved from: https://www.gov.uk/government/publications/new-rules-about-tobacco-e-cigarettes-and-smoking-1-october-2015/new-rules-about-tobacco-e-cigarettes-and-smoking-1-october-2015

[167] Howden-Chapman, P. (2015) Home Truths. Wellington: BWB Texts.

3.5 Chapter Summary and Issues that could be addressed by the New Urban Agenda

Efforts to reduce the likelihood of enhanced climate change, and adapting to its impacts, dominate this chapter. Not considered are urban impacts on aquatic systems, and the place cities play in biodiversity management. However, in the New Zealand context, these environmental issues are predominantly non-urban, and consequently are not included in this chapter.

For an industrialised country, New Zealand's emissions profile is unusually dominated by agricultural emissions. In addition, the country has a very high renewable energy sector. This limits the emissions reductions benefits of further shifting to renewables, compared with other countries. It also means transport is the dominant and fastest growing generator of urban atmospheric emissions, and the one consequently needing the most urgent strategic and policy focus.

However, to date central and local government response has been muted. There is a reliance placed on a national emissions trading scheme shown to have no significant influence on transport emission rates. Equally relevant is a distributed urban form in particularly the biggest city Auckland. This has generated the retrofitting of public transport and efforts to reverse declines in walking and cycling. But current plans to expand residential areas to cope with population growth do not overtly embed emissions implications of various options. This may bias against urban intensification and allow further sprawl, and associated increases in emissions.

Also lacking is integrated thinking relating to the types of dwellings that might be built, such as opportunities to require low energy house design and distributed alternative energy systems. While as noted transport is the most intractable part of the urban system in terms of emissions, equally, meeting extra energy demand in a growing city may increase demand for electricity generated by gas and coal fired power stations. A notable example of potential integrated thinking is encouraging solar power to generate the energy for electric vehicles. These vehicles are a major part of the Government's strategy to reduce transport emissions.

The above suggests the need for a thorough review of how central and local government assess and respond to the emissions implications of urban development.

Potentially influential in addressing traffic management from another angle are co-benefits associated with reduced congestion and air pollution. Investment in public transport, walking and cycling is providing a greater range of travel options, including those likely to benefit health, while also contributing to a reduction in per capita vehicle kilometre travelled.

In terms of climate change adaptation, while central government manages emissions, local government is required to manage the impacts of climate change. This makes sense in terms of ensuring sensible place-specific responses, given the large range of possible average temperature increases and related shifts in drought, extreme heavy rainfall events, sea level rise, storm surges, and floods. There are

technical and best practice guides on adapting to climate change impacts available through the Ministry for the Environment. However, there is a lack of clarity over whether and how to indicate areas where vulnerability might increase due to climate change. This leaves councils open to both current legal challenges and possible future ones.

It is becoming apparent many coastal communities and/or those on flood plains are becoming more at risk. Yet to be clarified is how to respond: should these communities be protected, be subject to managed retreat, or totally relocated? And where do the costs fall? Also unclear is how to manage predictions of water shortages and possible competition between rural and urban settlements.

Shifts in approaches to disaster risk reduction are improving the likelihood of communities managing climate change impacts, as well as hazards more broadly. Historically DDR was a top-down process focusing on large and brutal events and conducted in military style to maximising recovery. Over the past decade, there has been an increasing emphasis on preventing hazards, addressing community vulnerability and enhancing local capacities.

There is a danger of tokenism and an abrogation by the Crown of its duty of care through the devolution of responsibility to community groups. This can contribute to avoiding identifying the root cause of disasters, and instead relying on the ability to absorb and recover from impacts. However, current trends also favour better community involvement, including from minority or under-represented groups, and makes better use of local resources such as marae. Among the benefits may be improved management of lingering and/or gradual threats associated with (but not exclusive to) erosion, flooding, inundation and storm surges.

Notably, the uncertainty over how far local authorities may go in embedding projected climate change impacts into land titles or plans may unduly shape council behaviour and cloak evolving threats. This in turn may influence investment in suitable immediate and long term DRR. This includes identifying ways to reduce vulnerability in a timely manner. Government guidance rather than a reliance on legal precedence is needed.

The complex causes of disasters and their impacts are still inadequately understood, as are processes for assessing options for disaster risk reduction. Interacting with this is the public subsidisation and private financing of infrastructure, including insurance, which maintains communities in hazardous areas. The dynamic between climate change vulnerability and access to financial support creates uncertainty for property owners and liabilities for the wider community.

On another topic, air quality in New Zealand is generally good but is affected by vehicle emissions and solid fuel burners. Regular updates on emissions standards have resulted in marked improvements in local air quality. Remaining to be addressed are the location of some schools, and routes to schools, next to highly trafficked corridors, potentially exposing children to high levels of air pollution. This also ties into transport planning to encourage active modes such as walking and

cycling, and the need to provide safe routes for particularly children to exercise these options.

Recent bans on smoking in some areas has further improved local air quality, although the extent to which this should apply in public and private areas is an on-going debate.

Chapter 4: Urban Governance and Legislation

4.1 Urban Legislation

Overview. In New Zealand, a raft of legislation covers the responsibilities of central and local government to manage urban governance and development. Local authorities are established under the Local Government Act 2002, which provides broad functions for regional, city and district councils to meet current and future needs of communities for good quality local infrastructure and local public services.[168] Local authorities are required to recognise the Crown's responsibility to take appropriate account of the principles of the Treaty of Waitangi, and to this end to provide opportunities for Māori to contribute to local government decision-making processes.[169] In practice Māori may be elected to the governing bodies of local authorities, and most local authorities will have a standing committee of Māori to address Māori interests. Special provision is made for representation on the Auckland Council, through an appointed independent Māori statutory board.[170]

Public housing. Presently, some local authorities play a role in providing limited public housing, but facilitate the improvement of urban development through their planning and governance roles. The Housing Corporation, being under control of a ministry of central government, provides some funding for public housing developments.[171]

Planning. Local authorities have the primary responsibility for preparing regional and district plans under the Resource Management Act 1991 (RMA), the purpose of which is to promote sustainable management of the region and district.[172] Sustainable management is defined to mean managing the use, development, and protection of natural and physical resources in a way which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety, while at the same time sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations, safeguarding the life supporting capacity of ecosystems, and avoiding and mitigating adverse effects of activities on the environment.[173]

Urban planning occurs primarily at the municipal level (city and district councils) through district plans. Some higher level urban planning, such as restrictions on urban limits and preservation of natural areas, may occur at the regional council

[168] Local Government Act 2002, s 10.

[169] Ibid, s 4.

[170] Local Government (Auckland Council) Act 2009, part 7, ss 81-89, sch 2. See www.imsb.maori.nz.

[171] Housing Act 1955; Housing Corporation Act 1974. See also S Bierre, P Howden-Chapman, L Early, *Homes People Can Afford* (Steele Roberts, Wellington, 2013), and P Howden-Chapman, A L Pearson, R Goodyear, E Chisholm, K Amore, G Rivera-Muñoz and E Woodbury, "The Inverse Care Law" In E. Johnston, ed. *Once in a lifetime: City building after disaster in Christchurch,* (The Freerange Press, 2014), 190-198.

[172] RMA, s 5(1).

[173] RMA, s 5(2). This interpretation of the definition of the sustainable management purpose in the RMA was confirmed by the Supreme Court in *Environmental Defence Society Inc v New Zealand King Salmon Co Ltd* [2014] NZSC 38, [2014] 1 NZLR 593 at para [24(c)]. See also P Salmon and D Grinlinton (Gen Eds) *Environmental Law in New Zealand* (Thomson Reuters, Wellington, 2015) at para [4.3] for a full discussion of "sustainable management" in the context of the RMA.

level through regional policy statements and rules in regional plans. In the preparation of plans, a number of matters of national importance are provided for. For example, s 6(b) of the RMA requires councils and others exercising powers and functions under the Act to "recognise and provide for … the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development".[174] Other matters of national importance include "the relationship of Māori and their culture and traditions with ancestral lands, water, sites, waahi tapu (sacred places), and other taonga (cultural values and sacred or prized things)",[175] and the protection of historic heritage.[176]

The Minister for the Environment may establish national environmental standards and national policy statements, such as the New Zealand Coastal Policy Statement, that can influence the content of plans.[177] Moving down in the planning hierarchy, regional and district plans provide for "effects-based" planning[178] for urban development, and allow for consents to be granted for activities which measure up to the sustainable management objective.[179] Public participation opportunities apply to the preparation of policies and plans, and to applications for significant resource consents. Rights of appeal to the Environment Court may also apply to the decisions of local authorities on these matters.[180]

Building Standards. The Building Act 2004 provides for a national building code of minimum standards. These standards deal with risk aspects such as earthquake safety, and structural integrity. Minimum standards for existing residential properties are set under regulations, which are intended to prevent substandard living accommodation in caravans, shanty dwellings, and tents.[181] In recent years in Auckland, the major urban area, a housing shortage has arisen with significant increases in housing prices and rents creating widespread affordability problems and growing housing deprivation.[182] This is posing major challenges in implementing measures to provide for appropriate urban growth and residential intensification.[183]

Roading and public access. Major roading developments and public access are based on national strategies and plans under the Land Transport Management Act 2003, under which the New Zealand Transport Agency (NZTA) administers central government subsidies for roading work, and public transport.

Recent urban legislative changes. A temporary Housing Accords and Special Housing Areas Act 2013 has allowed for special housing development areas to receive fast-track approvals. This Act's benefits are debated, with an analysis of the

[174] RMA, s 5 (purpose), 6(b) (outstanding natural features).
[175] RMA, 6(e)
[176] RMA, s 6(f).
[177] RMA, part 5.
[178] Planning rules and decisions on applications to undertake activities of the effects of the activities under the RMA are intended to focus on the *effects* of activities rather than be based on the traditional rigid "zoning" approach.
[179] RMA, parts 5 and 6.
[180] Part 11.
[181] Building Act 2004; Housing Improvement Regulations 1947.
[182] In 2016, the average house price to average incomes is 10 to 1, which is severally unaffordable. See also L Murphy, 'Houston, we've got a problem': The Political Construction of a Housing Affordability Metric in New Zealand, (2014) *Housing studies*(ahead-of-print), 1-17.
[183] See L Early, M Russell and P Howden-Chapman, *Drivers of Urban Change* (Steele Roberts, Wellington, 2015).

Auckland special housing areas suggesting that it could reduce water quality.[184] The contribution of central government to public housing depends on government policy, and that contribution could be significantly increased to improve the housing situation. Recently the government has proposed a national policy statement on urban development, to improve the quality of urban planning and the financing of urban infrastructure.[185] Presently the costs of urban infrastructure are largely borne by both developers and councils, with costs passed on to the purchasers of these properties and tenants.

4.2 Decentralization and Strengthening of Local Authorities

Decentralisation versus centralisation. The concept of decentralisation and strengthening of local authorities presumes that decentralisation of local authorities from central government is a desirable outcome in any democracy. The principle is based on the theory that local communities are better served by local government at their level rather than a more removed and uniform central control. The converse view is that centralised control offers greater consistencies and economies of scale, and that local government or local communities may become polarised or fragmented by pressure groups within the communities which have the economic power to dominate the community. Within New Zealand, over the last 100 years, a conventional division of governance between central and local government has been maintained, with variations on the divisions found in other countries.[186]

Local and regional authorities. Within the Auckland region, the largest local government area in New Zealand, an amalgamation of seven municipal authorities and the Auckland Regional Council into one "super-city" in 2010 established a potentially comprehensive and efficient structure for local government. To that extent, the powers have been strengthened. In the other two metropolitan centres of Wellington and Christchurch, regional councils and ad hoc arrangements have enabled strategic planning and co-ordination of various urban services on a metro-wide basis across municipal authorities. Local authorities may contain a local board component, as found in Auckland, which comprises primarily of a governing body of 20 councillors elected from ward areas, with a subsidiary structure of 21 local boards, also elected, which provide advisory input to the governing body.[187]

Characteristics of urban governance. Urban governance in New Zealand is characterised by a high degree of decentralisation of authority for planning and provision of infrastructure and urban services, supported by the empowerment of urban authorities to raise revenues for their activities through property rates, investment activities, and various user charges, notably for water and for

[184] N Preval, E Randal, R Chapman, J Moores and P Howden-Chapman, "Streaming urban housing development: Are their environmental sustainability impacts?" (2016) *Cities*, 55, 101-112.

[185] Submissions have been called for on the scope of a National Policy Statement on Urban Development proposed for 2016: see www.mfe.govt.nz.

[186] In New Zealand no written constitutional document or convention exists as to the guaranteed role or powers of local government: Kenneth Palmer *Local Authorities Law in New Zealand* (Brookers, Wellington, 2012), chs 1, 23.

[187] Local Government (Auckland Council) Act 2009. Palmer, ch 19.

infrastructure provided to developers. Subsidies are available from central government for local roads and in some cases, for local water infrastructure.

Challenges. These arrangements have for many years worked adequately and have provided a high level of practical autonomy to urban areas, but it is widely considered that problems are emerging with this model in two areas.

First, the reluctance of the voting public to support amalgamation of adjoining urban authorities has raised concerns that, outside the three largest metropolitan centres, opportunities for economies of scale and improved efficiency in the provision of some types of infrastructure – especially water services and local roading – are not being realised. With political reluctance in some cities to apply metering and volumetric charging for water use there is also a widespread, chronic under-investment in water services.[188] Local Government New Zealand has subsequently prioritized policy work in this area[189] and the government has promised legislation to empower councils to better manage major infrastructure issues like water and transport during 2016.[190]

Second, there are concerns that the more fast-growing urban centres cannot adequately self-finance the major investments required to underpin urban expansion from their traditional sources. Borrowing is not seen as a desirable option for the long term,[191] and in some cases, cities are approaching their prudent borrowing limits.

The shortfall of investment applies particularly to public transport and social housing, and to a lesser extent, infrastructure needed to cater for rapidly growing numbers of tourists in smaller centres. As in many other countries, cities are dependent on funding for such investments from higher-level authorities, and much depends on the development of a shared vision across the multi-level governance structure. However, there have been prolonged delays in the implementation of strategic plans and investments in some cities, notably Auckland and Christchurch, on account of philosophical and political disagreements between the urban authorities and central government.[192] Auckland has promoted road pricing as a means of raising revenue from road users within its own boundaries for transport infrastructure. This would require central government to legislate the necessary powers, which has not progressed. The Auckland Transport Alignment Project is an ongoing effort to reach agreement on a range of Auckland transport issues.[193]

[188] Governance of Water – A proposal from the Turnbull Group, Water New Zealand, Wellington 2009

[189] Leading effective infrastructure development and funding policies, section 4 in Creating vibrant communities and economic growth across all of New Zealand – LGNZ Policy Statement 2014-15. Local Government New Zealand, Wellington 2014

[190] Legislation to help councils plan for future. Press statement by Paula Bennett, Minister of Local Government, 3 November 2015

[191] Palmer, supra n 19, chs 6, 12, 15.

[192] Lisa Early, Philippa Howden-Chapman and Marie Russell (eds) *Drivers of Urban Change* (Steele Roberts, Wellington, 2015) – see especially chapters 2 & 5

[193] http://www.transport.govt.nz/land/auckland/atap/

4.3 Improving Participation and Human Rights in Urban Development

Local elections. Urban legislation which applies in local authority areas provides considerable opportunities for public participation and accountability to the community. Under the Local Government Act 2002, elections are held every three years. Elections may also be held at the same time for local or community boards. All residents may qualify as electors, including absentee property owners and corporate owners. Councils must also prepare a 10-year plan, as well as annual plans, and these procedures allow for public input and submissions. Any person may make submissions in the planning process and need not be a property owner.[194]

Māori representation in local authorities. Māori may be elected to the governing bodies of local authorities, although this occurs only rarely in most parts of New Zealand. To give effect to concepts of partnership arising from the Treaty of Waitangi, many local and regional authorities have made additional arrangements to ensure an iwi input into decision-making. A few have created dedicated Māori seats on their governing bodies, and many have either established a standing committee of iwi representatives or have appointed Māori members to committees of the council. In the Auckland Council region, special provision is made for an independent Māori statutory board, funded by the council, to represent and advance Māori objectives in local government.[195]

The Resource Management Act. The RMA establishes regional and local plans setting out general development rights within the region and community. Any person may make submissions in the plan process, and may appeal the council decision to the independent Environment Court. An appeal can involve significant costs and may therefore preclude involvement of some people and groups. Nevertheless the right can be utilised by local community groups that can attract sufficient funding and, to that extent, is an effective safeguard against failure of the local council members to deal with matters under fair procedures.[196] The courts have generally refrained from awarding significant costs against community groups that are unsuccessful in appeals where an important point of public interest has been at issue.

Human rights and public welfare. The Human Rights Act 1993 applies to local government provision of services, and provides that discrimination should not occur, although there are some practical exceptions. New Zealand is a signatory to a number of international instruments including the Universal Declaration on Human Rights, the International Covenant on Economic, Social and Cultural Rights, the International Covenant on the Elimination of All Forms of Discrimination against Women, and the International Convention on the Rights of the Child which *inter alia*

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[194] Palmer, supra n 19, ch 4.

[195] Local Government (Auckland Council) Act 2009, part 7, ss 81-89, sch 2. See also K Stuart and M Thompson-Fawcett, (Eds.), *Tāone Tupu Ora Indigenous knowledge & sustainable urban design* (Steele Roberts, Wellington, 2010), and www.imsb.maori.nz

[196] RMA, sch 1. Palmer, supra n 19, ch 17.

include undertakings to provide for adequate housing.[197] However, these international undertakings are generally not directly enforceable in the domestic courts, and there is no specific human right under New Zealand legislation for the provision of adequate or affordable housing.[198] Public housing is primarily the responsibility of central government through Housing New Zealand which is a state agency. Central government may assist other community providers or emergency shelter groups in providing their services. City councils housing tenants are not eligible to receive income-related rents. Central government also provides for New Zealand citizens to be paid unemployment benefits, age benefits, and accommodation supplements to subsidise rents or loan costs.[199] Overall the social welfare and income support provisions are comprehensive, and would rank highly in comparison to many other countries, although standards and protection for tenants in rental housing is relatively weak. It is debateable whether there should be any improved participation or human rights provisions introduced, especially for affordable housing if that intruded into the freedom of individuals to use their own property to its best economic use or advantage.[200]

Challenges. The major issue that has arisen in relation to New Zealand's rights of public participation in the planning of cities and neighbourhoods is a concern that the rights of submission and appeal provided under the RMA, described above, take too long and in practice, and make it too difficult to rapidly expand housing supply in cities. This has become a political issue in light of rising housing unaffordability in Auckland, which may also however, be seen as a demand-side issue, part of a global phenomenon associated with low interest rates and rapidly growing large cities. As a result of this debate, special legislation now applying in both Auckland and Christchurch has curbed rights of appeal to the Environment Court while endeavouring to provide a shortened, single-hearing process for dealing with planning matters. Further, the Housing Accords and Special Housing Areas Act 2013 enables normal rules and procedures to be over-ridden in favour of rapid expansion of housing supply. Amendments to the RMA currently under consideration by Parliament would, if passed, enable further and more general reductions in public participation and appeal rights.

Other issues, under government policy, relate to the level of immigration allowed, especially in relation to economic and environmental refugees coming from overseas, and include the availability of health services and economic support benefits to these groups from central government.

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[197] See for examples, Universal Declaration on Human Rights, Art. 25(1); the International Covenant on Economic, Social and Cultural Rights, Art. 11(1); the International Covenant on the Elimination of All Forms of Discrimination against Women, Arts. 13(b) & 14(2)(h); and the International Convention on the Rights of the Child, Art. 27(1) & (3).

[198] Palmer, supra n 19, ch 13.11.

[199] Www.workandincome.govt.nz/individuals/a-z-benefits/accommodation-supplement.html; www.workingforfamilies.govt.nz/**accommodation-supplement**/

[200] Claims related to child poverty and minimum income levels are a regular call from community advocates, and by political parties opposing government decisions. On the reasonable expectations of tenants in terms housing quality, see S Bierre, M Bennett, and P Howden-Chapman, "Decent expectations? The interpretation of housing quality standards in tenancy tribunals in New Zealand" , (2015) *26*(2) *New Zealand Universities Law Review* 153-185.

4.4 Enhancing Urban Safety and Security

Overview. Urban safety and security, is primarily a matter for the New Zealand police under the Policing Act 2008. The provision of the police force in New Zealand is a responsibility of central government, and is organised on a national level. Police officers provide for prevention and investigation of offending, and also manage the policing of road transport systems.[201] Policing of minor offences such as parking infringements, is the responsibility of local authorities, who appoint traffic wardens to deal with parking matters.[202] Local authorities also have the ability, as do any commercial organisation, to contract security officers from private security firms, who will be licensed, to carry out additional security in the community, and at events. Security officers do not have the powers of arrest and detention that are held by the police force.[203]

Civil emergency situations. For emergency situations, including civil emergency disasters, the power exists for the police force, the fire services, and the armed forces to collaboratively or individually carry out preventive work and to assist in mitigating any emergency situation. Ambulance services and district hospital boards have similar involvement in those situations. The civil defence legislation provides for tiered responses depending on the scope of an emergency. The police force and the fire services are organised on a national basis, but work closely with local authorities, and are able to respond to urban safety and security situations.[204] Likewise, the ambulance service and paramedics have a similar responsibility through the district health boards. Environmental enforcement officers employed by the local authorities, together with security guards, cover other aspects of urban safety, security and environmental threats.

Māori wardens. Māori wardens provide a very positive contribution to community monitoring and conflict resolution working with Māori people in some areas. Māori wardens are not police, but have certain powers and legal responsibilities set out under the Māori Community Development Act 1962.

Challenges. Overall, enhancement of urban safety and security under legislation is adequately provided for in New Zealand. Violent behaviour within a community and lawlessness can be triggered by social situations, increasing income and wealth inequalities, housing shortages and poor housing conditions. Alcohol and drug use are also factors that are not easily preventable and which may not be foreseeable. Presently within New Zealand there is a low risk of civil disobedience or strife between sectors of a community. Gang violence is relatively minimal, and mitigated by the police so far as their resources allow, but family violence is a salient issue which affects children and has proved difficult to address. Overall, there are concerns that urban safety and security problems may grow. Potential drivers include increased immigration, increased residential segregation, and reduced social perception of a meritocratic, middle-class society.[205]

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[201] See Police website www.police.govt.nz

[202] Land Transport Act 1998 (traffic management rules); Land Transport Management Act 2003 (transport systems). Palmer, ch 14.2.7.

[203] Private Investigators and Security Guards Act 1974.

[204] Civil Defence Emergency Management Act 2002. Palmer, supra n 17, ch 22.

[205] See Early et al, supra n 24, pages 54-55 and 223.

4.5 Improving Social Inclusion and Equity

Overview. Social inclusion is dependent in many respects on the observance of human rights, and prevention of discrimination or unfair treatment within society, and the provision of employment opportunities with fair wages. Within New Zealand, laws provide for equal payment between male and female adults, but allow for lesser rewards for children or young persons who may also be in employment.[206] The provision of free public education applies for persons 5 years up to the age of 16 or 17, and should ensure that basic standards of education are provided, and there is opportunity to participate in social and employment matters.[207] Rights to vote in central and local government elections are available to persons of age 18 and above, and the abilities to stand as a candidate on these bodies is not restricted. Many local groups provide for local services, community support, and sporting and recreational opportunities. These groups are able to apply for funding from a number of community trusts and funding sources, and may also contract with central government to provide social, recreational and sporting programmes. Many communities have the benefit of different social, recreation, and sporting clubs, to promote social inclusion and equity. Such groups have ensured opportunities for good social inclusion of persons in communities and have mitigated isolation of young and elderly persons.

Breach of equity. Where any significant breach of equity occurs in an employment situation, opportunities are available to bring grievance claims in relation to unfair treatment, although persistently high mortality levels have been experienced in some occupations such as forestry and mining.[208] Rights and obligations may allow for paid parental leave in respect of infant children.[209] In regard to residential tenancies, protection also exists for residential tenants (and landlords) who may apply to a tenancy service and Tribunal where breaches of agreements or unfair treatment arise.[210] The existence of an Ombudsmen system to consider complaints as to government and local government policies and decisions, is available without any fee, which again provides for fairness and access to justice in dealing with complaints over social exclusion and inequities.[211] In most places, discrimination occurs at a relatively low level in New Zealand and persons with different ethnic, social and financial backgrounds find general acceptance within social groupings and work and enterprise opportunities.

Māori relations and rights. Māori and the Crown have specific rights and responsibilities enshrined in the Treaty of Waitangi of 1840 and subsequent legislation and case-law. Provision is made for Māori as original settlers, or "tangata whenua" (first peoples), to seek redress in the Waitangi Tribunal for grievances dating back to the early period of colonial settlement. The Tribunal was established

[206] Equal Pay Act 1972; Minimum Wage Act 1983.

[207] Education Act 1989.

[208] Employment Relations act 2000. Palmer, supra n 19, ch 9.5.

[209] Parental Leave and Employment Protection Act 1987. Palmer, supra n 19, ch 9.6.

[210] Residential Tenancies Act 1986. See David Grinlinton, *Residential Tenancies: The Law and Practice* (4th ed, LexisNexis, Wellington, 2012).

[211] Ombudsmen Act 1975, ch 2.8.

in 1975 to investigate such grievances and to make recommendations to government for return of land or resources, and payment of monetary compensation. The system has been successful with a multitude of claims having been settled and many Māori groups receiving reparations that have allowed them to establish strong economic bases for the benefit and advancement of their people.[212] A race relations commissioner is able to intervene on racial disputes, and to mediate for remedies and direction for the future.[213]

Child poverty. An ongoing public issue in relation to social inclusion and equity concerns child poverty. The incidence of child poverty is influenced by a number of public policies but the most salient is an important income maintenance programme, *Working for Families*, which provides a tax credit for working families but excludes support for non-working parents with children.[214]

4.6 Chapter Summary and Issues that could be addressed by the New Urban Agenda

New Zealand's systems of urban governance and legislation have performed adequately for many years, but are now facing two kinds of pressures for which they are not well adapted. First, there are high rates of urbanisation in some cities, especially in Auckland, which are giving rise to persistent problems and delays in housing and infrastructure response. Second, there is rising pressure from central government for greater efficiency in the provision of various urban services and especially in the provision of water infrastructure and roading.

The high rate of urbanisation in Auckland is driven demographically by strong natural increases: net immigration from the rest of New Zealand; and recently, unprecedented levels of immigration from abroad, including a net inflow from the diaspora of New Zealand citizens living elsewhere. While as already described, a number of steps have been taken to address the shortfalls in house-building, public transport and other infrastructure, the response to date is widely regarded as inadequate and key issues remain gridlocked. This is fundamentally attributable to a lack of cohesion in the multi-level governance structure.[215]

One lesson to be learnt from this is the importance of developing a shared vision for future urban development across multi-level governance. There have been many attempts to do this, such as the Auckland Plan, the Auckland Housing Accord, the Consensus-Building Group on Auckland Transport Funding, and the Proposed Auckland Unitary Plan. Each has suffered from varying levels of scope or of engagement of key players and, above all, from a failure to focus on achieving agreement about the underlying institutions and other factors influencing urban outcomes. These include the allocation of externalities, land rents and public sector costs, and the institutions affecting the supply and demand of housing and

[212] Treaty of Waitangi Act 1975.
[213] Human Rights Act 1993.
[214] Child Poverty Monitor Technical Report 2015, Otago University, available at: http://www.childpoverty.co.nz.
[215] Guy Salmon, *Chapter 2, Auckland.* In Early et al, supra.

infrastructure. The differing political affiliations of central government and the Auckland Council played a role here, but such a situation is common internationally and does not necessarily preclude making progress. A researcher who interviewed 29 key players associated with the decision processes affecting Auckland noted that, "It seemed from our interviews that these differences were more cognitive than value-based in nature. This suggests that – in a relatively pragmatic political culture – they may be open to change based on evidence, mutual dialogue and learning over time."[216]

A second lesson to be learnt from the Auckland experience is that the need to develop greater residential intensification in inner suburbs and along major public transport arteries cannot be avoided, if the city is to efficiently accommodate another million people as expected in the next thirty years. To achieve this, as highlighted in the original Auckland Plan, both up-zoning of some areas and a major investment programme in public transport are required. It is encouraging that there is now an emerging agreement across the political spectrum on these policy ingredients, although tangible implementation actions await the finalisation of the Auckland Transport Alignment Project and the Auckland Unitary Plan later in 2016.

The inefficiency and ineffectiveness in the provision of some urban services, notably water services and roading is less of an issue in Auckland because of the city's scale, and the relative independence and professional governance of Watercare Services and Auckland Transport, which has facilitated effective decision-making.

Outside Auckland, there are several key lessons to be learned. First, the fragmentation of the water services industry into 73 business entities has been unhelpful for gaining economies of scale. Second, the widespread absence of non-political governance and of a national regulator, in favour of a system of political control by local councils, has created barriers to funding the necessary investments. In particular, in the water sector, it has generally proved difficult to introduce residential metering and volumetric charging for water; and council-controlled companies have been used by councils as a source of revenue and of debt security for general council purposes, without paying adequate attention to depreciation and new investment needs, especially in sewage and stormwater infrastructure and renewal. Parallel or similar issues arise in roading. It is yet to be seen whether these issues will be fully addressed by legislation expected later this year.

There are a number of future challenges and issues that could be addressed by the New Urban Agenda. These include the special cultural needs and economic development of urban Māori; the need for greater intensification of urban living patterns, particularly in larger cities such as Auckland, Wellington and Christchurch; and greater efficiency of urban infrastructure and energy use to help address global issues such as climate change and its consequences.

The enactment of the Treaty of Waitangi Act 1975, gave official recognition to the Treaty as part of New Zealand law, and set in place a unique process for Māori to make claims to the Waitangi Tribunal in respect of grievances arising from actions of the Crown and Parliament since 1840. Many claims have been the subject of reports

[216] Guy Salmon, ibid, page 57.

in favour of the claimant Māori parties,[217] with recommendations settled through negotiation with the Office of Treaty settlements.[218] For the most part the settlements of these claims have involved return of land and resources, financial compensation, and provision for participation by Māori in commercial ventures.[219] As most of these settlements are with recognised tribal groups in specific geographic – mainly rural – locations, urban Māori and Māori urban authorities who do not have close links to their tribal origins may have been overlooked. This situation needs to be addressed to provide for greater participation of urban Māori in such settlements, and to allocate more resources to facilitate such participation. There are an increasing number of urban Māori community housing initiatives (papakainga) arising from Treaty settlements and often involving public/private partnerships.[220]

Apart from the Treaty grievance process, both the Local Government Act and the RMA make provision for indigenous representation and participation in decision-making.[221] In relation to financial benefits and sharing of public revenues, substantial commitments are made by central government to public health, law enforcement, education at all school and tertiary levels, and public housing. The proportion of funding directed towards indigenous persons who benefit from the expenditure is significant and generally exceeds their population ratios in the communities. This outcome partly reflects urban demographic issues, including housing needs, unemployment, minimum income, child poverty, and public health outcomes. Challenges include reductions in child poverty, criminal offending, domestic violence, smoking rates, drinking of alcoholic substances, and taking of illegal drugs. These concerns tend to affect Māori as the indigenous persons, Pacific Island families, and all persons of a lower socio-economic level to a greater extent than others.

The second area that could be addressed by a New Urban Agenda is to facilitate greater intensification of residential housing, and the establishment of satellite "new towns" outside of the central urban isthmus particularly in Auckland, including improvement of fast public transport infrastructure to service these new conurbations. To a limited extent in Auckland the issue of greater intensification is being addressed in the short term through the establishment of special housing areas, although these include restrictive building height limits and their location in practice has overwhelmingly been oriented toward greenfield sites, increasing the urban footprint.[222] The combination of the Proposed Auckland Unitary Plan and the designation of special housing areas has effectively removed urban limits without resolving the key question of the ability to increase residential density in existing suburbs. A combined Auckland Plan is currently being developed which will include

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[217] See www.justice.govt.nz/tribunals/waitangi-tribunal *(Tribunal reports). A claim that the proposed Trans Pacific partnership trade agreement (TPPA) will be harmful to Maori is before the Tribunal on 15 March 2016.*

218 See Office of Treaty Settlements, www.ots.govt.nz/.

[219] One notable example is the "Sealord Deal" whereby in 1992 as settlement of Maori fishing claims under the Treaty of Waitangi, Maori received fishing assets equating to ownership of a 20% share of commercial fishing in New Zealand. This has been expanded to include future aquaculture licences.

[220] See Stuart & Thompson-Fawcett, supra n 29.

[221] Local Government Act 2002, ss 4, 81; Resource Management Act 1991, s 8. Resource Legislation Amendment Bill 2015, ss 58K-58P (proposed obligation on councils to enter iwi participation arrangements with Maori groups on regional and district plan content).

[222] See the Housing Accords Special Housing Areas Act 2013 and the "Housing Accords" made thereunder (such as the Auckland Housing Accord 2013 and the Christchurch Housing Accord 2014) which are agreements between central and local government to rapidly implement accelerated housing development in areas experiencing housing shortages. For Auckland, see also Salmon, supra n 49, pages 27-29.

new housing rules allowing more intensive development in some areas.[223] The sufficiency of these remains to be seen.

In respect of the development of satellite towns, this is a more challenging issue due to the difficulties in funding new public transport and roading infrastructure. Most major infrastructure is funded through both local government and central government, and it has proven extremely difficult in the past to source sufficient funding for major transport projects.[224] Achieving acceptable commute times into Auckland may also constrain reliance on satellite towns, especially if residential intensification in inner suburbs is enabled at scale.

A third major area to be addressed is efficiency in energy use in urban areas, and implementation of renewable energy. While New Zealand has an enviable record of around 80% renewable electricity generation nationally,[225] the population has a relatively high dependence upon motorised transport with substantial reliance upon private vehicles. This is changing gradually with the introduction of modern electrified trains in cities like Auckland and Wellington, but the extent of the networks is limited, expansion of services is slow, and there is room for improvement in reliability. There needs to be significant investment in the Auckland region in electrified rail and other public transport which provides extensive services, is cost-effective, and reliable. This will require major central government funding which can be justified given the economic contribution that Auckland makes to New Zealand's economy, and the contribution which Auckland is being expected to make to the goal of diversifying sources of export income. It will also require strong leadership on increasing residential density along public transport corridors and especially around train stations, without which rail and busway investments will struggle for viability.

Another area where regulation can assist is through the design and construction requirements for buildings. While New Zealand's Building Act 2004, and the "Building Code" therein, impose high structural standards for buildings and the use of energy efficient designs and materials, there is considerable room for improvement. New Zealand could adopt more demanding energy efficiency and self-sufficiency standards for both new and older buildings such as those introduced in some overseas cities such as Barcelona.[226] Planning rules could be reworked to facilitate greater uptake of renewable energy options such as solar and wind power in the urban context. The National Policy Statement for Renewable Electricity Generation 2011 introduced by government under the RMA requires local authorities to give greater support and to facilitate greater uptake of renewable electricity through its planning instruments.[227]

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[223] For further information, see the Auckland City webpages at: http://www.aucklandcouncil.govt.nz

[224] An example is the funding of the inner-city rail link. For background see: http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11580394

[225] New Zealand Energy Strategy 2011. The Strategy has a target of 90% of electricity to be generated from renewable sources by 2025. See K Palmer and D Grinlinton "Developments in Renewable Energy Law in New Zealand" (2014) JERL 245.

[226] The Energy Efficiency and Conservation Act 2000 requires the Energy Efficiency and Conservation Authority to issue a national strategy, and to promote technologies for energy efficiency and conservation, such as housing insulation. See www.eeca.govt.nz.

[227] The NPS complements the New Zealand Energy Strategy in moving to a greater reliance on renewable energy sources, such as solar energy, wind turbines, hydro-electricity, and geothermal energy. See www.mfe.govt.nz.

The concept of a new urban agenda is not new; New Zealand was an exemplar for post-war workers' housing based around community amenities. Ideals of a model community or balanced public welfare system, with an emphasis on promoting good education, adequate housing, better employment, healthy living styles, greater energy and transport efficiency, opportunities for minority groups, and inclusion of migrants within a community, have been a feature of government policies for over 50 years. A focus on a New Urban Agenda could revisit these long-standing objectives, and harmonise needs with the present financial capacity. Government policies determine the allocation of resources, affect positive outcomes, and should promote a better future for all inhabitants. A proposed national policy statement on urban development in 2016 has the potential to support an agenda for achieving better outcomes for all members of society.

Chapter 5: Urban Economy

5.1 Improving Municipal/Local Finance

Local Government Revenue. Due to its relative financial independence, local government in New Zealand has a significant degree of autonomy from central government compared with its counterparts in many other jurisdictions. The main source of revenue for local government in New Zealand is rates, a tax on property-owners which provides just under 60% of the operating revenue of local government. Other local revenue sources include investments, development contributions, fees and charges. Approximately 12-15% comes from grants, subsidies and petrol taxes allocated by central government mainly tied to roading and public transport.[228] Distribution is dependent on central government funding priorities and this source does not provide certainty for local government. For many councils, especially rural ones with a small population and rating base, and large road network, this uncertainty is problematic as funding from central government for roading makes up a large proportion of the council's operating revenue.

Less dependence on central government for funding since the major restructuring of local government in 1989 has provided more freedom for residents to set local government priorities. A disadvantage has been that local government now has responsibility for activities that were previously the domain of central government with no additional funding, e.g. pest and weed control.

A positive feature of the legislative and policy framework for municipal/local finance in New Zealand is the range of mechanisms that are available to local government to collect revenue. As well as general rates linked to the value of a property, there are additional tools such as targeted rates, which are an additional tax on sub-groups of property owners for a particular benefit they receive such as water supply, or a public transport service, or flood protection. This provides an element of user fairness. The complex nature of multiple ownership of ancestral Māori land has resulted in a long history of grievances and problems associated with rating that are acknowledged but remain unresolved. Unpaid rates have accumulated and are a major impediment to Māori economic development.[229]

Challenges. In general, local/municipal finances are healthy and the requirement for councils to have long-term plans that align with short-term action assists in transparency and strategic planning.[230] However, a key challenge is to find an appropriate balance between local and central/national government funding sources. This is becoming more urgent as social issues increase. The number of households that do not own their own home is increasing as a result of growing housing unaffordability, and as the population ages more people are on fixed incomes and therefore less able to afford increasing property taxes.

[228] Department of Internal Affairs. (n.d.). Local Government in New Zealand - Local Councils Operating Revenue. Retrieved from http://www.localcouncils.govt.nz/lgip.nsf/wpg_URL/Profiles-Local-Government-Statistical-Overview-Operating-Revenue?OpenDocument
[229] Local Government Rates Inquiry. (2007). Funding local government. Report of the Local Government Rates Inquiry. Wellington: Local Government Rates Inquiry.
[230] Local Government Funding Agency. (2015). A snapshot of local government's financial health: a sector in good shape. Wellington: Local Government New Zealand. Retrieved from http://www.lgnz.co.nz/assets/LGNZ-Financial-Sector-Report.pdf 15 January 2016.

Though property tax is also reflected in rents paid by non-home owners, rates are used to fund services that arguably should be funded from a broader base, namely taxes collected by the central/national government. Recognising that much of what local government does is in the national interest, and in many cases is undertaken more efficiently by local government on behalf of central government, the operating revenue for local government in New Zealand should be derived from a more stable and broader base than currently is the case.

A robust foundation for municipal/local finance is inextricably linked to the constitutional status of local government/municipalities and, indeed, a strong and healthy local democracy. In some jurisdictions, local government is recognised formally and has constitutional protection. In New Zealand, local government is not protected and is created by an ordinary statute. Unwritten and informal constitutional conventions to some degree constrain attempts by the national/central government to substantially weaken local government. However, it is still possible for the national/central government to undermine local democracy through imposing new responsibilities and constraints on local government. Therefore, clearer constitutional recognition of the importance of sub-national government is needed.[231]

5.2 Strengthening and Improving Access to Housing Finance

Rising house prices and rents have been a significant policy concern for many years. While emphasising market-led solutions, the government has implemented a range of policies supporting access to homeownership and assisting rental costs for low-income households.

Finance from banking sector. The retail banking sector provides the majority of finance for house purchases in New Zealand. To address financial stability issues and house price inflation, the Reserve Bank has introduced a set of macro-prudential policies that set limits on the loan-to-value ratios applied to mortgage lending[232]. These policies, designed to restrict the activities of property investors in the market, have raised the deposit requirements for homeowners. Consequently, securing a deposit is a significant barrier for first-time homeowners.

First-time homeowners. The government provides assistance for first-time homeowners via several programmes: The KiwiSaver HomeStart, the Welcome Home Scheme, Tenant Home Ownership (for tenants in government rentals), and Kainga Whenua Loans (loans for houses on multiple-owned Māori land)[233]. These schemes are relatively small scale and are of limited value for households seeking to buy in high-priced housing markets, such as Auckland.

[231] Cheyne, C. M. (2015). Local Government. In J. Hayward (Ed.), New Zealand Government and Politics (6th ed., pp. 190-201). Melbourne: Oxford University Press.
[232] Reserve Bank of New Zealand (2016) Loan-to-valuation ratio restrictions http://www.rbnz.govt.nz/financial-stability/loan-to-valuation-ratio-restrictions Accessed 13 June 2016
[233] HNZ (2015) Briefing to the Incoming Minister Responsible for Housing New Zealand, http://www.hnzc.co.nz/assets/Uploads/briefing-for-the-incoming-minister-2015.pdf Accessed 13 June 2016

Low-income households. The Accommodation Supplement is the primary welfare mechanism used to assist households that have high housing costs. This benefit assists low-income households in homeownership and the private rental market. The Supplement, which is income and means tested, offers assistance with housing costs that exceed 30% of a household's income up to a regionally defined maximum payment. Although the government spends over $1 billion per annum on the Accommodation Supplement[234] there are concerns that this benefit supports the rent setting strategies of landlords and that the assistance offered to tenants, though necessary and helpful, is limited.

Social housing. Households in the social rented housing sector are supported by an Income Related Rents (IRR) scheme. Rents for social rented housing tenants, with incomes below a defined threshold, are set at 25% of the tenant's income. Tenants exceeding the income threshold pay above 25% of their income on a rising scale until the rent reaches the market rent. The difference between the income-related rent and the market rent is paid to the social rented housing provider as a subsidy. Initially restricted to Housing New Zealand tenants, since 2014 the Ministry of Social Development has taken over the administration of the IRR scheme and now provides the subsidy to approved community housing providers[235]. The reorganisation of the IRR regime represents one component of a wider set of reforms in the social rented housing sector[236]. The reform programme is designed to broaden the range of social housing providers in the sector. It remains to be seen how successful these reforms will be.

Challenges. Notwithstanding the variety of government policies directed towards strengthening and improving access to housing finance, there is a strong reliance on market-led solutions. In the context of rapid house price and rent inflation, reliance on the market is problematic as low-income households are both priced out of homeownership and subject to increased housing stress in the rental market. Moreover, the central government's response to housing affordability problems has tended to focus on releasing land supply for residential development, particularly on Auckland's urban periphery. This policy strategy is unlikely to reduce house prices[237] and has the potential to exacerbate problems relating to urban infrastructure costs and the environmental costs of suburban sprawl.

5.3 Supporting Local Economic Development

Overview. Since the establishment of a settler government in New Zealand in the mid-19th century, local government has had an important role in economic development. The newly established municipalities were initially focused on infrastructure such as roads, water, gas supply, street lighting and drainage that

[234] New Zealand Treasury (2016) Budget Economic and Fiscal Update, 26 May 2016 http://www.treasury.govt.nz/budget/forecasts/befu2016/befu16.pdf Access 13 June 2016
[235] Ministry of Social Development (2016) Social Housing Provider Operational Guidelines for Community Housing Providers, http://www.housing.msd.govt.nz/documents/forms/provider-forms/operational-guidelines-chps.pdf Accessed 13 June 2016.
[236] Ministry of Social Development (2016) Social Housing Reform Programme (SHRP) http://www.socialhousing.govt.nz/ Accessed 13 June 2016
[237] Murphy, L. (2015). The politics of land supply and affordable housing: Auckland's Housing Accord and Special Housing Areas. *Urban Studies* 10.1177/0042098015594574

were critical to their economic development. It was widely accepted that local councils have a role in developing and promoting their area through acquisition of land and buildings, promoting the local economy, establishing 'sister city' relationships with municipalities in other parts of the world, and developing tourism facilities. The latter is now New Zealand's highest source of export earnings.

The Local Government Act. In 2002, new legislation was enacted which explicitly recognised local government's role in promoting economic well-being. The Local Government Act 2002 (LGA 2002) was a broadly empowering statute which stated that one of the purposes of local government was to "promote the social, economic, environmental, and cultural well-being of communities, in the present and for the future". This applied to both regional councils and territorial authorities (city/district councils). Although that statutory purpose was modified a decade later in 2012, there is still considerable scope for local government to be involved in local economic development.

Economic Development in Auckland. When the Auckland Council was established in 2010 it was required to develop a spatial plan for Auckland, the purpose of which is "to contribute to Auckland's social, economic, environmental, and cultural well-being through a comprehensive and effective long-term (20 to 30 year) strategy for Auckland's growth and development".[238] In addition, the legislation which formed the Auckland Council mandated the creation of a number of council-controlled organisations (CCOs) for managing critical infrastructure and assets. One of the CCOs, Auckland Tourism, Events and Economic Development Limited, is specifically focused on economic development, with the goal of lifting Auckland region's economic wellbeing, and supporting and enhancing the ability of the region to compete internationally.

Economic Development in other Urban Centres. Other councils in New Zealand are not governed by the same legislation, and mayors outside Auckland do not have the same powers as the Auckland mayor.[239] There is also no requirement for other councils to do spatial planning or to have a CCO focused on economic development. Nonetheless, there is considerable involvement in economic development by both regional councils and territorial authorities. Just over 3% of local governments' operating expenditure in 2014 was on economic development.[240] Although a small proportion of overall expenditure, this is not an insignificant amount and is greater than expenditure on community development.

Council Collaborations. Collaboration between councils and local industries and other stakeholders has been evident in many regions for a long time. Most, if not all, regional councils and other city and district councils have developed economic development strategies for their respective districts or regions. Many councils contribute to non-government organisations that receive funding from industry as well. Mayors of city/district councils have developed networks for promoting economic development including mayoral forums such as the Waikato Mayoral

[238] Local Government (Auckland Council) Act 2009.
[239] Cheyne, C. M. (2015). Local Government. In J. Hayward (Ed.), *New Zealand Government and Politics* (6th ed., pp. 190-201). Melbourne: Oxford University Press.
[240] Statistics New Zealand. (2015). Local Authority Statistics. Retrieved 20 March 2016, from Statistics New Zealand http://www.stats.govt.nz/browse_for_stats/government_finance/local_government/local-authority-statistics-info-releases.aspx

Forum, and the national organisation, the Mayors Taskforce for Jobs. Although their focus is primarily on environmental quality and natural resource management, regional councils also have a role in promoting and providing for regionally significant services, amenities and infrastructure, and representing their region's interests and contributions to the regional, national and international community. In all regions, networks of councils and industries exist for the purposes of promoting the local and/or regional economy and responding to changing economic conditions.

Indigenous Involvement. What is often not sufficiently developed is iwi and Māori involvement in these networks and other initiatives. Yet, as a result of Treaty settlements, Māori are increasingly important economic actors. Iwi play a major role in fisheries, forestry and tourism and this will expand with their ownership of other critical infrastructure and assets and their increasing social participation.

Challenges. There is a need for central government to clearly recognise and complement the important role of local government in local and regional economic development. Increased funding by central agencies in the tourism, transport, technology and conservation sectors is needed to support regional innovation. To the extent that regional economic development depends on domestic and international tourists, central government investment is needed to support the restoration, protection and enhancement of New Zealand's natural assets. The conservation estate makes up a third of the country, yet underfunding of the Department of Conservation has resulted in serious biodiversity decline.[241]

Regional economic growth varies considerably and some regions experience major fluctuations in growth rates. Sustainable local economic development is underpinned by regional development policies that ensure that regional economic development is not uneven. Increasing central government resourcing for initiatives such as the Regional Growth Programme launched in 2014 by the Ministries of Business, Innovation and Employment (MBIE) and Primary Industries is a useful step towards assisting regions that have particular challenges. However, these agencies need to work closely with tourism and conservation central agencies.

Engagement with all sectors of the community, in particular iwi and Māori, and not just established industries, is an important priority. This is also critical for ensuring that gaps between highly skilled, low-skilled and unskilled groups do not grow. The inextricable link between economic and community development needs to be recognised.

5.4 Creating Decent Jobs and Livelihoods

Overview. The growth of decent jobs and livelihoods is increasing in urban centres. For example, jobs losses were widely shared during the Global Financial Crisis (GFC) associated recession. But the recovery in jobs has been predominantly in the urban centres. Of all the jobs created since the recession, 85% have been in the three main urban centres, and 70% in Auckland – the largest city and commercial capital.

[241] Brown, M. A., Stephens, R. T., Peart, R., & Fedder, B. (2015). Vanishing Nature: Facing NZ's biodiversity crisis. Auckland: Environmental Defense Society.

Despite the apparent success of urban centres, there are accumulating challenges. The largest city, Auckland, is choking on growth – unable to supply physical, economic and social infrastructure fast enough. For rural centres, some are benefitting from specialised growth, but vulnerable to one-off shocks, whether commodity prices or climatic events. Too many are facing stagnation or decline, as the traditional industrial base hollows out jobs and populations. New Zealand has experienced an urbanization trend, similar to global movement. All of the population growth over the past century has been in urban centres. This is because jobs have shifted from the primary and manufacturing sectors to services, which thrive with agglomeration benefits of urban centres. But the urban narrative, policies and practices are becoming unstuck. The solutions will not be the same for all parts of New Zealand, but the underlying policy frameworks and tools are the same: politics, planning, transport and funding.

Challenges in Auckland. Unaffordable housing and congested traffic in Auckland are eroding quality of life. The average house price in Auckland is now over ten times the average family's income, making Auckland the fourth most unaffordable city in the world.[242] Traffic congestion costs the economy in excess of $1b a year.[243] Planning regulation is unable to provide sufficient new capacity for housing, both because of the lack of courage from local government and vehement opposition from current homeowners to density in brownfield developments.

The new urban agenda needs to discourage NIMBYism. There are many people who are understandably opposed to the externalities of density, but comfortable to reap the benefits associated with urban living. Greenfield development is hindered by expensive infrastructure, the cost of which falls to local government, but the fiscal benefit accrues to central government with no means of sharing. The new urban agenda needs to consider the funding and tools available to make real change. The current setup is not working, nor sustainable.

Traffic congestion is a real cost to the Auckland economy now. Transport investment is split between various agencies, with differing funding lines and ideologies. There is little coordination between different modes of transport. Car based travel is prioritised over public transport, walking and cycling. Underinvestment in public transport over decades has led to an infrastructure deficit, compounded by low use of public transport and other modes like rail, cycling and walking. The new urban agenda needs to begin at a broad and integrated transport strategy, which includes all modes and does not unduly prioritise roads.

Specialised centres. Small regional centres are often specialised in one industry, leaving it at the mercy of shocks. Urban development in small and specialised centres need to prioritise economic development to create more resilient economies, ensuring secure work and livelihoods.

Stagnant/declining urban centres. There are many small urban centres that are stagnating or in decline, in terms of jobs, economic activity and population. This is

[242] http://www.demographia.com/
[243] http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10873207

because their traditional reason to exist around a particular industry has disappeared. An ageing population and slowing income growth will exacerbate the decline, and large infrastructure renewal needs could tip them into financial ruin. New more cost effective solutions need to be found. For example, in-home water filtering systems maintained by local government rather than expensive water treatment plants.

Local land use planning and related services are trapped in an ideology of growth and are unprepared for the possibility of decline. There is a denial that some places will shrink and wither. Even if not a central case, the new urban agenda needs to create an option that is a pragmatic and accessible path of graceful decline.

5.5 Integration of the Urban Economy into National Development Policy - A Focus on Housing

Overview. Urban development is an integrated and important part of the development of a nation, following the global trend of urbanisation. The development of an urban economy contributes substantially to service provision, capital, trades, logistics, technology and human capital, and the agriculture and natural resource sector. A sound urban economy brings in sustainable resources and opportunities for the development of a nation.[244,245] The growth of an urban economy depends on the change of demographic cohorts that shape the demand of goods and necessities. One of the essential necessities is housing. Housing affordability influences the stability of a society and health and well-being of people.[246,247,248] There are challenges with regards to housing people in New Zealand that will be faced with growing cities.

The influence of monetary policy versus credit policy on house affordability to first-home buyers. Empirical evidence has shown that house affordability for first-home buyers responds to the monetary policy faster than the credit policy in New Zealand.[249] The change of Official Cash Rate (OCR) can influence housing affordability for first-home buyers. It will be beneficial to review the present monetary policy in line with the level of OCR when housing affordability concerns people, especially in respect to the issues of housing affordability in Auckland.[250,251] However, the level of OCR also affects the potential growth of the economy in other industries and sectors.

[244] Sharp, B., & Poletti, S. (2012). Green growth: Opportunities for New Zealand, Vivid Economics and Energy Centre, University of Auckland Business School, report prepared for the New Zealand Green Growth Research Trust, November 2012.
[245] Byrd, H., Ho, A., Sharp, B., & Kumar-Nair, N. (2013). Measuring the solar potential of a city and its implications for energy policy. *Energy policy*, 61, 944-952.
[246] Dietz, R.D., & Haurin, D.R. (2003). The social and private micro-level consequences of homeownership. *Journal of urban Economics*, 54(3), 401-450.
[247] Hirayama, Y., & Ronald, R. (2008). Baby-boomers, baby-busters and the lost generation: generational fractures in Japan's homeowner society. *Urban Policy and Research*, 26(3), 325-342.
[248] Short, J.R. (1988). Construction workers and the city: 1. Analysis. *Environment and Planning A*, 20, 719-732.
[249] Dong, Z. (2016). How do monetary and credit policies affect housing affordability? *Australia Housing Research Conference (AHRC)*, 17-19 February, Auckland, New Zealand.
[250] New Zealand Herald (2016). Auckland has the fifth least-affordable houses in the world. 25 January 2016.
[251] New Zealand Herald (2016). Shamubeel Eaqub: House crisis puts Auckland's future at risk. 26 January 2016.

Fostering an effective system for the collection and evaluation of rates without unintentional influence on house price. The house transaction price can be biased due to publication of capital value (CV) although the purpose of CV is only for local rates (property tax) assessment.[252] There are huge implications from the empirical evidence that residential property buyers and sellers incorporate potential bias of CV valuation into the property transaction price when CV is accessible to the public. Councils are suggested to look into this unintentional consequence. There are other ways of evaluation for tax purpose.[253,254]

Promoting competition in the property development market by providing accessible loans to smaller developers. Competition among developers promotes social welfare when land parcels are optimally used and developed. However, developers differ substantially in regard to their financing abilities and business strengths which prevent optimised land usage.[255] Smaller developers face difficulties in securing loans. Making construction loans readily accessible to smaller developers will facilitate the promotion of social welfare and benefit the urban and national economy because their entry into the development market will promote competition that facilitates the optimal use of natural resources such as land.

It is necessary to have consensus and mutual understanding of the valuation of Māori reserved land when religious and spiritual value concerns Māori land owners. It becomes more and more important to understand the valuation of Māori land, especially when Māori land is purchased by the Crown and compensation to Māori land owners concerns government agencies. The valuation of Māori land is connected to the compensation model to native titles.[256] An appropriate method of valuation and compensation is prominent when the market is sensitive to the change of property rights for lessees of Māori reserved land.[257] Māori people are encouraged to develop their own land in line with their religious and spiritual needs and values.

5.6 Chapter Summary and Issues that could be addressed by the New Urban Agenda

This chapter addresses the core issues associated with the economics of sustainable urbanisation including: municipal and housing finance, support for local economic

[252] Levy, D., Dong, Z., & Young, J. (2016). Unintended consequences: the use of property tax valuations as guide prices in Wellington, New Zealand. *Housing Studies*, published online, DOI: 10.1080/02673037.2015.1105935.
[253] University of Auckland Business School (2015). Why CVs distort the housing market. 15 September 2015.
[254] National Business Review (2015) Why CVs distort the housing market. 23 September 2015.
[255] Dong, Z., & Sing, T.F. (2015). How Do Land Auction Formats Influence the Market Structure and Aggregate Surplus of Real Estate Development? *Real Estate Economics*, Early View, published online, DOI: 10.1111/1540-6229.12117.

[256] Fortes, R. (2005). Compensation models for native title. 2005 Pacific Rim Real Estate Society Annual Conference, 23-27 January 2005, Melbourne, Australia.
[257] Boyd, T.P. (1998). The challenges and myths of lessor and lessee interest valuations. 1998 Pacific Rim Real Estate Society Annual Conference, January 1998, Perth, Australia.

development and the creation of jobs and livelihoods as well as the bigger picture issue of integrating the urban economies into national development policy.

Since the reforms in New Zealand in 1989, it is recognised that local or territorial authorities have a large degree of financial independence although this does not guarantee that they can actually raise the amounts to meet needs. However, the rating system has created unresolved grievances with Māori where land is in multiple 'ownership'.

The challenge appears to be finding an appropriate balance between local and central funding sources particularly as social issues increase and levels of owner occupation of housing decreases. In addition, there would seem to be a case for a much clearer constitutional recognition of the importance of subnational government.

There is a concern over the reliance on market led solutions especially when large numbers of households are depending on social housing. Access to housing finance needs to be strengthened and improved. Given the links between economic and community development, the public sector has an important role to play in economic development at national and territorial levels, particularly as regional economic growth varies between regions and tourism is now New Zealand's highest source of export earnings.

The growth of jobs, particularly since the global financial crisis in 2008, has been in the three main urban centres. Many rural settlements are facing decline and stagnation as a result of vulnerabilities to external economic shocks.

The New Urban Agenda must tackle the need to develop more resilient economies in the small specialised centres which at present are susceptible. There is a need to plan for the possibility that growth is not inevitable in all parts of the country nor at the same rate, while at the same time taking stock of the likely effects of continued concentration of growth in Auckland. The urban development associated with growth takes place in a national and international context where the Official Cash Rate (OCR), credit policy, CVs and loans all play a part.

As other chapters have pointed out, the need for integrated thinking and policy development is critical.

Chapter 6: Housing and Basic Services

6.1 Sub-standard Housing and Access to Adequate Housing

Severe housing deprivation. New Zealand does not have discrete urban areas with the typical multidimensional "slum" issues, however it has severely deprived settlements of different type and size. Homelessness has been recently redefined in New Zealand as Severe Housing Deprivation [258] meaning the lack of access to minimally adequate housing. This definition was introduced to better reflect the situation of those living in severely crowded private dwellings, as well as other forms of severely inadequate housing such as temporary commercial accommodation, marae, emergency accommodation, living on the street, or in makeshift or mobile accommodation. The prevalence of severe housing deprivation at 34,000 people in 2006 has increased 9% from 2001, and predominantly affects children, young adults, ethnic minorities, and single parent households or those not accompanied by family. It was estimated that between 12,900 to 21,000 dwellings would be required to house those experiencing severe housing deprivation in 2006. Residents of these types of settlements often have inadequate access to primary infrastructure and suffer variable combinations of conditions including overcrowding, homelessness, lack of privacy and control, tenure insecurity and usage of unsuitable structures.[259,260,261,262] The dynamics of these problematic environments have been linked to those of social polarisation and the related widening social and economic distances between different groups correlated to the consolidation of their spatial segregation.[263,264,265] This is substantive in particular areas of the historical periphery of major cities like Auckland and Wellington with high levels of socioeconomic deprivation.[266] In these places the diffused inadequate dwellings aggravate their overall living conditions, distinctly affecting some low-income groups of ethnic minorities, particularly Pacific People.

Quality of housing. Thermal performance of New Zealand's housing stock is generally poor. Cold and damp dwellings, reportedly constituting half of the New Zealand stock[267], have been found strongly correlated to the high incidence of fuel poverty, which concerns about one fourth of New Zealand households, and adds to the ever increasing health risk of respiratory illnesses and serious diseases like

[258] Amore, K., Viggers, H., Baker, M. G., & Howden-Chapman, P. (2013). *Severe housing deprivation: The problem and its measurement.* Wellington: Statistics New Zealand Retrieved from http://www.statisphere.govt.nz/further-resources-and-info/official-statistics-research/series/2013/severe-housing-deprivation.aspx.
[259] Amore, K., Viggers, H., Baker, M. G., & Howden-Chapman, P. (2013). Severe housing deprivation: The problem and its measurement *Official Statistics Research Series, 6*.
[260] Auckland Council. (2012a). *The Auckland Plan*. Auckland. Retrieved from http://theplan.theaucklandplan.govt.nz/
[261] Goodyear, R., & Fabian, A. (2014). *Housing in Auckland Trends in housing from the Census of Population and Dwellings 1991 to 2013.* Wellington: Statistics New Zealand. Retrieved from www.stats.govt.nz
[262] Statistics New Zealand. (2014a). 2013 Census population and dwelling tables. Statistics New Zealand
[263] Amore, K., Viggers, H., Baker, M. G., & Howden-Chapman, P. (2013). Severe housing deprivation: The problem and its measurement *Official Statistics Research Series, 6*.
[264] Johnson, A. (2010). The contribution of housing policies to social polarisation in Auckland. Wellington: The Salvation Army.
[265] Johnston, R., Poulsen, M., & Forrest, J. (2009). Evaluating changing residential segregation in Auckland, New Zealand, using spatial statistics. *Tijdschrift voor economische en sociale geografie, 102*(1), 1-23.
[266] Atkinson, J., Salmond, C., & Crampton, P. (2014). *NZDep2013 Index of deprivation*. New Zealand, Ministry of Health
[267] Statistics New Zealand. (2014b). *New Zealand definition of homelessness: update.*: Retrieved from www.stats.govt.nz

rheumatic fever.[268] The quality of housing available in the private rental market is poorer than that of owner-occupied housing, and limited protections are provided to rental tenants, with short-term leases being common.[269] Facing increased pressure to improve housing standards, the government has recently announced minimum standards for rental housing including insulation to 1978 standards, despite these standards being much lower than current insulation levels required for new-build housing.[270] These standards are also lower and much more narrowly focused than those developed for a Warrant of Fitness rating scheme for rental housing which was tested with the support of five local councils, [271] and another Rental Housing Warrant of Fitness trial undertaken for the Ministry of Business and Innovation.[272]

Overcrowding. Crowding is the most predominant of the adverse conditions present and recently showed a slight overall decline in the country, i.e. in 2006-2013 it fell from 10.4 to 10.1 percent of the total population living in households.[273,274] The decline, however, is not homogeneous, since in disadvantaged areas of Auckland and post-earthquake Canterbury figures have increased and confirm the growing spatial polarisation trend. Concentrations of the most severely affected were found in South Auckland, where suburbs like Otara and Mangere have more than 40 percent of people living in crowded households and half of them in severely crowded ones.[275] National ethnic differences range from approximately 4 percent among people of European descent to 38 percent among Pacific peoples.[276] The concentration of occurrences is in vulnerable individual and household cohorts, such as children, young adults, and sole-parent families.[277,278,279]

Unsuitable shelter. Irregular collective dwelling settlements with unsuitable shelter, such as motor camps, and improvised and mobile dwellings are also an emerging problem.[280,281,282] Their magnitude is the most difficult to estimate, since it is intrinsically transient in nature. For example, whilst the 2013 census counted only 27 people nationwide, in 2011 'rough sleeping' in Auckland city centre alone

[268] Howden-Chapman, P., Viggers, H., Chapman, R., O'Sullivan, K., Telfar Barnard, L., & Lloyd, B. (2012). Tackling cold housing and fuel poverty in New Zealand: a review of policies, research, and health impacts. *Energy Policy, 49*, 134-142.
[269] Bierre, S., & Howden-Chapman, P. E. (2013). *Homes people can afford: How to improve housing in New Zealand.* Wellington: Steele Roberts Aotearoa.
[270] Howden-Chapman, P., O'Sullivan, K., Bierre, S., Chisholm, E., Hamer-Adams, A., Ombler, J., & Amore, K. (2015). What effect will the 2015 Budget have on housing? *Policy Quarterly, 11*(3), 13-19.
[271] Bennett, J., Howden-Chapman, P., Chisholm, E., Keall, M., Baker, M. G., & and the Rental Housing WOF Team. (In Press). Towards an agreed quality standard for rental housing: Development of a New Zealand housing WOF tool. *Australian and New Zealand Journal of Public Health*.
[272]Bosch, M. (2014) Trial of Rental Housing Warrant of Fitness Scheme with Housing New Zealand. Wellington: Housing New Zealand. Retrieved from http://www.mbie.govt.nz/info-services/housing-property/pdf-document-library/trial-rental-housing-wof-scheme-housing-nz-report.pdf
[273] Ministry of Health. (2014). Analysis of Household Crowding based on Census 2013 data. Wellington
[274] Statistics New Zealand. (2014a). 2013 Census population and dwelling tables. Statistics New Zealand
[275] Goodyear, R., & Fabian, A. (2014). Housing in Auckland Trends in housing from the Census of Population and Dwellings 1991 to 2013. Wellington: Statistics New Zealand. Retrieved from www.stats.govt.nz
[276] Statistics New Zealand. (2012). Ethnicity and Crowding. Retrieved from www.stats.govt.nz
[277] Amore, K., Viggers, H., Baker, M. G., & Howden-Chapman, P. (2013). Severe housing deprivation: The problem and its measurement Official Statistics Research Series, 6.
[278] Goodyear, R., & Fabian, A. (2012). Household crowding in New Zealand compared with selected countries. Wellington: Retrieved from www.stats.govt.nz
[279] Ministry of Health. (2014). Analysis of Household Crowding based on Census 2013 data. Wellington.
[280] Beaton, S., Cain, T., Robinson, H., & Hearn, V. (2015). An insight into the experience of rough sleeping in central Auckland. Auckland: Retrieved from http://www.lifewise.org.nz
[281] Goodyear, R., & Fabian, A. (2014). Housing in Auckland Trends in housing from the Census of Population and Dwellings 1991 to 2013. Wellington: Statistics New Zealand. Retrieved from www.stats.govt.nz
[282] Statistics New Zealand. (2013). Living outside the norm: An analysis of people living in temporary and communal dwellings, 2013 Census. Retrieved from http://www.stats.govt.nz

was officially estimated at between 160 and 320 individuals.[283] An indication emerges from the comparison between the last two census datasets that show an increase in excess of 82 percent in the number of people dwelling in motor camps. The living conditions of the increasing number of people permanently residing in campgrounds[284] and bush camps[285] are also very uncertain, yet generally characterised by poor and extremely poor quality shelters, almost absent of security of tenure, and often accompanied by poverty, social exclusion and vulnerability.

Severe housing crisis in Auckland. The most acute cases of the severe housing crisis can be found in the Auckland region, where a steadily growing urban area with more than 1.5 million people hosts more than a third of the New Zealand population.[286,287] Its occurrence is typically urban, but it includes some emerging peri-urban epiphenomena in the form of semi-structured settlements, such as formal and informal campgrounds. The magnitude of the whole phenomenon is very difficult to determine due to its high informality and fluidity, but also because of the variability of definitions and measurement standards.[288,289]

Home-ownership. Historically high levels of home ownership among New Zealanders, often supported by government-subsidisation of mortgages until the 1990s, have rapidly declined from a peak of over 74% in 1990 to 64.8% as recorded in the 2013 Census.[290] [291] Home ownership is more common among older New Zealanders, with the highest percentage being 77.5% of those aged 70-74 years. Rates of home ownership for younger people have declined significantly, especially among those aged 30-39 for whom home ownership has reduced from 54.6% in 2001 to 43.0% in 2013, and those aged 40-49 with home ownership rates falling from 71.5% in 2001 to 60.8% in 2013. Current rates of home ownership among Māori (28.2%) and Pasifika (18.5%) are even lower, reflecting the socioeconomic and demographic differences in these populations. In contrast, the number of households living in rental housing has increased over the same period, while availability of social housing (which is predominantly state-owned housing) has decreased slightly under the current government.[292] Most households living in rental accommodation (83.7%) rent from the private sector.

Unaffordability. Housing unaffordability has critically exacerbated existing housing deprivation issues concerning tenure insecurity, overcrowding, and the use of unsuitable dwelling spaces. The increase in tenure insecurity,[293] besides the financial risk of highly indebted households, is strongly correlated to the recent reduction in provisions of social housing. In 2015, within a process of progressive

[283] Auckland Council. (2012a). The Auckland Plan. Auckland. Retrieved from http://theplan.theaucklandplan.govt.nz/
[284] Severinsen, C. (2009). Marginally grounded: Camping ground residence in New Zealand. University of Otago, Wellington.
[285] Vezich, D. (2016). Young and homeless: The Auckland teens living in the bush [Newshub, 12 Jan 2016]. Retrieved 1 April 2016, from http://www.newshub.co.nz
[286] Auckland Council. (2012a). *The Auckland Plan*. Auckland. Retrieved from http://theplan.theaucklandplan.govt.nz/
[287] Johnson, A. (2016). *Moving Targets, State of the Nation report*. Auckland: The Salvation Army. Retrieved from http://www.salvationarmy.org.nz
[288] New Zealand Coalition to End Homelessness. (2009). *Homelessness in Aotearoa: Issues and Recommendations*. Retrieved from http://nzceh.org.nz
[289] Statistics New Zealand. (2014a). 2013 Census population and dwelling tables. Statistics New Zealand
[290] Howden-Chapman, P. (2015). *Home Truths: Confronting New Zealand's Housing Crisis*. Wellington: Bridget Williams Books Limited.
[291] Statistics New Zealand. (2014). 2013 Census QuickStats about housing. Retrieved from http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-housing.aspx
[292] Howden-Chapman, P. (2015). *Home Truths: Confronting New Zealand's Housing Crisis*. Wellington: Bridget Williams Books Limited.
[293] Ministry of Business Innovation and Employment, Auckland Council, & Auckland Co¬design Lab. (2014). *Exploring Security of Tenure through Co-Design*. Retrieved from http://www.mbie.govt.nz

privatisation, social housing accommodated approximately 5 percent of the population. However the persistence of a legal framework with one of the world's most unfavourable renting regulations[294] particularly in regards to tenancy termination (almost unconditional and on short notice) has seen a decrease in numbers.

Addressing the housing crisis in New Zealand. The conditions of disadvantaged districts and marginal settlements have been recently addressed by both central and local governments with dedicated studies, such as the ones triggered by the Auckland Housing Research Plan,[295] regeneration policies such as the Auckland Southern Initiative, and intervention such as the Tamaki Regeneration Programme (Tāmaki Regeneration Company - TRC). These aim to improve the overall social and physical environments, focusing on housing, infrastructures and health. Their eventual results, however, are very difficult to predict since, as largely demonstrated by international literature, their dynamics are directly correlated to the evolution of general socioeconomic and political frameworks. Efforts by both central government and local authorities to address these problems with dedicated policies and incentives has correspondently increased.[296,297,298,299,300,301,302] Yet, to date, it has not succeeded in effectively offsetting them.[303,304]

6.2 Ensuring Sustainable Access to Safe Drinking Water

Overview. All New Zealanders have access to improved drinking water sources.[305] New Zealand has plentiful supplies of freshwater relative to other countries, however environmental degradation particularly due to the intensification of dairy production[306] and future local impacts of climate change[307] present increasing risks to the sustainability of safe drinking water supplies.

Governance. Since the introduction of the Resource Management Act 1991, pollution from point source discharges has been reduced by councils under a

[294] New Zealand Institute of Economic Research. (2014). The home affordability challenge Suite of policy reforms needed in New Zealand NZIER public discussion paper, Working paper 2014/4. Retrieved from http://nzier.org.nz
[295] Auckland Council. (2013). Housing Research Plan Ngā whare o Tāmaki Makaurau - Auckland Council Research Strategy and Priority Research Areas, 2013-2016. Retrieved from http://www.aucklandcouncil.govt.nz
[296] Bridges, S. (2013). $100m for investing in warmer, healthier homes. Wellington: New Zealand Government, The Minister of Energy and Resources. Retrieved from https://www.beehive.govt.nz
[297] Building Act, as at 01 March 2016 (2004).
[298] Energy Efficiency and Conservation Authority. (2013). Insulate your home for free [Warm Up New Zealand: Healthy Homes Programme] available at: https://www.govt.nz/browse/housing-and-property/insulation-and-energy-efficiency/insulate-your-home-for-free/
[299] Johnson, A. (2013). Give Me Shelter: An assessment of New Zealand's housing assistance policies. Retrieved from http://www.salvationarmy.org.nz
[300] Ministry of Business Innovation and Employment, Auckland Council, & Auckland Co-design Lab. (2014). Exploring Security of Tenure through Co-Design. Retrieved from http://www.mbie.govt.nz
[301] New Zealand Productivity Commission. (2012). Housing affordability inquiry. Retrieved from http://www.productivity.govt.nz/
[302] The Social Housing Reform (Housing Restructuring and Tenancy Matters Amendment) Act (2013).
[303] Parker, C. (2015). Housing supply, choice and affordability Trends, economic drivers, and possible policy interventions. Auckland: Auckland Council. Retrieved from: http://www.aucklandcouncil.govt.nz
[304] Salvation Army. (2016). The 2016 Moving Targets Report, State of the Nation Report. Retrieved from http://www.salvationarmy.org.nz

[305] World Health Organization. (2016). World Health Statistics: Monitoring Health for the SDGs. p.89
[306] Foote, K. J., Joy, M. K., & Death, R. G. (2015). New Zealand Dairy Farming: Milking Our Environment for All Its Worth. *Environmental Management, 56*(3), 709-720. doi:10.1007/s00267-015-0517-x
[307] Bennett, H., Jones, R., Keating, G., Woodward, A., Hales, S., & Metcalfe, S. (2014). Health and equity impacts of climate change in Aotearoa-New Zealand, and health gains from climate action. *New Zealand Medical Journal, 127*(1406), 16-31.

devolved governance model, however diffuse pollution from stormwater and industry, particularly dairying, remains problematic. Currently, the government is consulting on proposed changes to fresh water governance, with the stated aims of improving fresh water management to deliver better environmental and economic outcomes, and specifically for Māori, to improve iwi/hapu participation in fresh water governance and management.[308]

Territorial authorities are responsible for managing land uses under the Resource Management Act and generally provide drinking water.[309] Regional councils are tasked with granting water and discharge permits, and for allowing other activities that may affect registered drinking water supplies, in accordance with the National Environmental Standards[310] introduced by the previous Labour-led government under the Sustainable Water Programme of Action.[311] The current government postponed compliance with these standards progressively so that large suppliers were required to meet the standards from 1 July 2012, through to neighbourhood suppliers serving 25-100 people that were required to meet the standards from 1 July 2016.[312] Rural agricultural drinking water supplies or those serving less than 25 people or 6000 person-days are currently not required to meet the standards. Around 8% of households, who use their own water supply, are also not required to meet the standards, although the Ministry of Health provides some advice on how to ensure rain-tank supplies are clean and safe.[313]

Water quality standards. In the 2013-2014 year the Ministry of Health reported that overall, 79.0% of New Zealanders were supplied with drinking water that met all of the bacteriological, protozoal, and chemical standards for drinking water quality.[314] This varies significantly with the size of zones with supplies in large zones serving over 10,000 people (78% of total people) achieving 99.2% compliance with bacteriological standards and 89.7% achievement with protozoal standards, while small zones serving between 101 and 500 people (2% of total people) achieving 71.8% compliance with bacterial and 23.5% protozoal standards. Overall, in terms of supply population, compliance with chemical standards is highest at 95.3%, followed by bacteriological (96.7%) and protozoal standards (79.2%). The number of cases of water-borne disease in New Zealand has been estimated at between 18,000 and 34,000 annually.[315]

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[308] Ministry for the Environment. (2016). *Next steps for fresh water: Consultation document.* Wellington: New Zealand Government. Retrieved from http://www.mfe.govt.nz/sites/default/files/media/Fresh water/next-steps-for-freshwater.pdf.
[309] Ministry for the Environment (2016) *Roles and responsibilities for fresh water*. Retrieved from http://www.mfe.govt.nz/fresh-water/overview-fresh-water/roles-and-responsibilities
[310] New Zealand Legislation. (2007). *Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (SR 2007/396)*. Wellington: New Zealand Government. Retrieved from http://www.legislation.govt.nz/regulation/public/2007/0396/latest/DLM1106901.html?search=ta_regulation_R_rc%40rinf%40rnif_an%40bn%40rn_25_a&p=3.
[311] Ministry for the Environment. (2006) Retrieved from http://www.mfe.govt.nz/more/cabinet-papers-and-related-material-search/cabinet-papers/freshwater/sustainable-water-0
[312] Ministry of Health. (2016) *Drinking water legislation*. Retrieved from http://www.health.govt.nz/our-work/environmental-health/drinking-water/drinking-water-legislation
[313] Ministry of Health (2014). *Water Collection Tanks and Safe Household Water*. Retrieved from https://www.healthed.govt.nz/resource/water-collection-tanks-and-safe-household-water
[314] Ministry of Health. (2015). *Annual Report on Drinking-water Quality 2013–2014*. Wellington: Ministry of Health. Retrieved from http://www.health.govt.nz/publication/annual-report-drinking-water-quality-2013-14.
[315] Ball, A. (2007). *Estimation of the burden of water-borne disease in New Zealand: Preliminary report*. Wellington: Ministry of Health Retrieved from http://www.health.govt.nz/publication/estimation-burden-water-borne-disease-new-zealand-preliminary-report.

6.3 Ensuring Sustainable Access to Basic Sanitation and Drainage

Overview. Water management in New Zealand overall is determined by the Resource Management Act 1991 which governs land management and water quality, with different central government departments playing a role in enforcing legislation. Local government, in the form of territorial authorities and regional councils, is tasked with delivering water services and managing wastewater and sewerage networks and discharges.[316] New Zealand shares joint standards on plumbing and drainage with Australia[317] that specify requirements for sanitary plumbing and drainage to sewers or common effluent systems, or as is still common for around 20% of New Zealand homes, on-site wastewater management systems. Under the Building Act 2004, councils are responsible for ensuring that buildings are sanitary, with buildings deemed insanitary if adequate potable water is not available.[318]

Inequalities. While access to basic sanitation and drainage for networked houses is comparatively good, in some situations population inequality is reflected. For example, damage from significant earthquakes in Christchurch, particularly the magnitude 6.3 earthquake centred under the city on 22nd February 2011 caused the most impact in the eastern suburbs. Due to a higher concentration of Māori living in these more economically deprived areas, in the weeks following the disaster, Māori people were reported to be more affected by reduced access to basic necessities including sanitation and portable sanitation facilities.[319] The experience of Māori volunteers and service providers in Christchurch suggest ways of improving integration of Māori capacity in disaster preparedness planning, which is likely to be particularly relevant in managing future climate change impacts.[320]

Climate change. Future climate change is expected to create significant challenges for maintaining increasing quality standards being set for New Zealand's water, wastewater, and stormwater services, particularly with increasing extreme weather events and drought, or conversely higher rainfall predictions in some areas of the country.[321] Due to a combination of socioeconomic, demographic, and geographic factors, Māori and Pacific people face increased risk of greater impacts of climate change, compared to New Zealand European people.[322]

[316] Auckland Regional Council. (2013). *Auckland Council Regional Plan: Air, Land and Water*. Auckland: Auckland Council Retrieved from http://www.aucklandcouncil.govt.nz/en/planspoliciesprojects/plansstrategies/districtRegionalPlans/regionalplans/auckland-council-regional-plan-air-land-and-water/Pages/home.aspx.
[317] Standards New Zealand. (2015). Australian/New Zealand Standard: AS/NZS 3500.2:2015. Plumbing and drainage - Part 2: Sanitary plumbing and drainage. Wellington: Council of Standards New Zealand.
[318] Barrett, J., & Narraway, G. (2010). *Accountability and drinking-water in rural New Zealand* Retrieved from Auckland: http://docs.business.auckland.ac.nz/Doc/Gwyn-Narraway.pdf
[319] Phibbs, S., Kenney, C., & Solomon, M. (2015). Ngā Mōwaho: an analysis of Māori responses to the Christchurch earthquakes. *Kōtuitui: New Zealand Journal of Social Sciences, 10*(2), 72-82. doi:10.1080/1177083X.2015.1066401
[320] Phibbs, S., Kenney, C., & Solomon, M. (2015). Ngā Mōwaho: an analysis of Māori responses to the Christchurch earthquakes. *Kōtuitui: New Zealand Journal of Social Sciences, 10*(2), 72-82. doi:10.1080/1177083X.2015.1066401
[321] Bennett, H., Jones, R., Keating, G., Woodward, A., Hales, S., & Metcalfe, S. (2014). Health and equity impacts of climate change in Aotearoa-New Zealand, and health gains from climate action. *New Zealand Medical Journal, 127*(1406), 16-31.
[322] Bennett, H., Jones, R., Keating, G., Woodward, A., Hales, S., & Metcalfe, S. (2014). Health and equity impacts of climate change in Aotearoa-New Zealand, and health gains from climate action. *New Zealand Medical Journal, 127*(1406), 16-31.

Water infrastructure renewal. In several areas of New Zealand, councils are facing costly water infrastructure renewal.[323] Additionally, demographics are shifting with growth forecasts set to create other challenges for infrastructure costs and management as forecasts predict population growth for urban areas, while rural areas are predicted to experience flat or declining populations. In response to limited knowledge about the current state of water infrastructure and management, Local Government New Zealand has coordinated a stock-take with local councils and released a position paper in September 2015.[324] Concurrently, central government's consultation on freshwater management will also determine future issues and responses in the water, wastewater, and stormwater sectors.[325]

6.4 Improving Access to Clean Domestic Energy

Overview. New Zealand has a diverse portfolio of energy resources, and renewable generation continues to increase, contributing 79.9% of electricity, and 39.5% of the primary energy supply in 2014 – the third highest primary energy supply from renewables in the OECD.[326] Greenhouse Gas Emissions in the electricity sector are reducing, and projections suggest decline to 1990 levels will be reached by the mid-2020s, dependent on limiting expansion of baseload gas generation and closure of the coal-powered Huntly steam units.[327] However, New Zealand's government, while supporting increased use of renewable electricity generation to 90% in 2025,[328] has not strongly signalled for energy transition through feed-in tariffs or other mechanisms. The largest local producer of coal is the state-owned Solid Energy (currently in voluntary administration). One third (34%) of coal use in New Zealand is for electricity generation,[329] though overall just 4.3% of New Zealand's electricity generation was from coal in 2014. A 2014 report[330] by New Zealand's Parliamentary Commissioner for the Environment did not advocate a moratorium on hydraulic fracturing in regards to production of oil and gas, however the report did encourage review at national and regional council level of the regulations involved in permitting oil and gas operations.

Residential Electricity. The cost of domestic electricity has been problematic, with residential prices rising steeply over the period since 1996, despite a much smaller increase in industrial electricity prices and a reduction in commercial electricity prices.[331] Following extensive deregulation, New Zealand's electricity market operates under a light regulatory framework compared with other OECD countries,

[323] Castalia Strategic Advisors. (2014). *Exploring the issues facing New Zealand's water, wastewater, and stormwater sector*. Wellington: Local Government New Zealand Retrieved from http://www.lgnz.co.nz/assets/Publications/LGNZ-3-Waters-Issues-Paper.pdf
[324] Local Government New Zealand. (2015). *Improving New Zealand's water, wastewater and stormwater sector*. Wellington: Local Government New Zealand Retrieved from http://www.lgnz.co.nz/assets/Uploads/29617-three-Waters-Position-Paper.pdf.
[325] Ministry for the Environment. (2016). *Next steps for fresh water: Consultation document.* Wellington: New Zealand Government Retrieved from http://www.mfe.govt.nz/sites/default/files/media/Fresh water/next-steps-for-freshwater.pdf.
[326] http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand/Energy%20-in-New-Zealand-2015.pdf
[327] http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/modelling/new-zealands-energy-outlook/electricity-insight/electricity-insight.pdf
[328] https://www.eeca.govt.nz/assets/Resources-EECA/nz-energy-strategy-2011.pdf
[329] http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand/Energy%20-in-New-Zealand-2015.pdf
[330] "Drilling for oil and gas in New Zealand: Environmental oversight and regulation", Parliamentary Commission for the Environment, June 2014, http://www.pce.parliament.nz/media/1265/fracking-report-web-may2015.pdf
[331] http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand/Energy%20-in-New-Zealand-2015.pdf

and saw rapid price rises for domestic consumers.[332] Some recent attempts have been made to address problems with market competition, including asset swaps between the major companies and a public campaign to increase consumer switching rates. Residential electricity prices decreased by 1.7% in the year to March 2016 for the first time in 15 years.[333] Government acts as majority shareholder in the three largest electricity generator-retailer companies, although a recent programme of state-asset sales has reduced state holdings in these assets.

Fuel Poverty. The cost of residential electricity contributes to the widespread problem of fuel poverty or energy insecurity, where households are unable to achieve sufficient energy to meet accepted standards of living.[334] Fuel poverty is not officially defined, measured, or explicitly targeted by government policy, but is estimated to affect 25% of the population.[335] Mean indoor temperatures are lower than those recommended by the World Health Organization to maintain health. The majority of New Zealand households rely on relatively inefficient plug-in electric space heating and although use of more efficient electric heat-pumps has increased, these are less often used in housing typical of low income families. Electricity is used for space heating by 79.2% of households, followed by wood (36.8%), gas (27.4%), coal (4.1%), and no heating (3.0%).[336] Unflued gas heating is still common, particularly among multi-family households with dependent children, despite the associated health concerns of combustion emissions.[337] Government-funded programmes such as the Warm Up New Zealand: Heat Smart insulation and clean heating retrofit scheme and Energy Star energy efficiency labelling have made some gains. However, rapid improvement in energy efficiency of buildings and appliances are required to remediate fuel poverty.

Cost of Electricity. The cost of electricity varies geographically; rural areas with fewer consumers and greater transmission distances pay a premium, notably in the far North of the North Island, which has a higher proportion of Māori and experiences greater economic deprivation than the general population. Retail electricity pricing plans contribute additional inequalities. Around 3% of households use prepayment metering to pay for electricity and those with children report increased hardship. Electricity purchased through prepayment metering is more expensive than that purchased using standard alternative post-payment, and prepayment consumers are at increased risk of fuel poverty.[338] Prepayment consumers have lower incomes and rates of home ownership than the general population, with a higher proportion of Māori and Pasifika peoples purchasing electricity through prepayment.[339]

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[332] Bertram, G., & Twaddle, D. (2005). Price-cost margins and profit rates in New Zealand electricity distribution networks since 1994: the cost of light handed regulation. *Journal of Regulatory Economics, 27*(3), 281-308.
[333] http://www.mbie.govt.nz/about/whats-happening/news/2016/decrease-in-household-electricity-costs
[334] Bouzarovski, S., & Petrova, S. (2015). A global perspective on domestic energy deprivation: Overcoming the energy poverty–fuel poverty binary. *Energy Research & Social Science, 10*, 31-40. doi: http://dx.doi.org/10.1016/j.erss.2015.06.007
[335] Howden-Chapman, P., Viggers, H., Chapman, R., O'Sullivan, K., Telfar Barnard, L., & Lloyd, B. (2012). Tackling cold housing and fuel poverty in New Zealand: a review of policies, research, and health impacts. *Energy Policy, 49*, 134-142. doi:10.1016/j.enpol.2011.09.044
[336] http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-housing/heating-fuels.aspx
[337] O'Sullivan, K., Telfar Barnard, L., Viggers, H., & Howden-Chapman, P. (in press). Child and youth fuel poverty: assessing the known and unknown. *People, Place, and Policy*.
[338] O'Sullivan, K. C., Howden-Chapman, P., & Fougere, G. (2015). Fuel poverty, policy, and equity in New Zealand: The promise of prepayment metering. *Energy Research & Social Science, 7*, 99-107. doi: http://dx.doi.org/10.1016/j.erss.2015.03.008
[339] O'Sullivan, K. C., Howden-Chapman, P. L., Fougere, G. M., Hales, S., & Stanley, J. (2013). Empowered? Examining self-disconnection in a postal survey of electricity prepayment meter consumers in New Zealand. *Energy Policy, 52*, 277-287. doi: http://dx.doi.org/10.1016/j.enpol.2012.09.020

Geothermal Energy. Recent geothermal energy developments (Rotokawa, Nga Awa Purua and Ngatamariki power stations) by Mighty River Power Ltd have been done in partnership with the Tauhara North No. 2 Trust which has 6,000 beneficiaries in the Māori community who have ancestral connections to the land involved. As a result the trust has built up assets of $NZ 438 million which help fund on-going community development programs.[340]

Solar Power. New Zealand consumers wishing to deploy solar photo-voltaic panels have access to a range of innovative schemes to help them manage the initial capital costs involved. For example the Solarcity scheme[341] installs panels on roof tops at no initial cost to the consumer, who pays a fixed monthly fee to access the energy generated.

Renewable Electricity. New Zealand's highly renewable electricity supply means electric vehicles are worthy of consideration as a means to displace the use of fossil fuels in transport. Uptake of fully electric (i.e. plug-in charged) vehicles is currently limited to 1,304 vehicles on New Zealand roads.[342] "The New Zealand Minister of Energy and Transport is enthusiastic about electric vehicles, and says a policy package is on the way, with an emphasis on coordinating charging points and improving public awareness, and with a warning not to expect subsidies or government funding of charging points."[343]

6.5 Improving Access to Sustainable Means of Transport

Overview. Sustainable means of transport – walking, cycling and public transport – are still minimally used in New Zealand. Between 1989 and 2014 the proportion of journeys to work that involved public transport remained steady at about 6-7%, and journeys that involved walking to work were consistently at around 5%.[344] Over the same time period, journeys to work by bicycle dropped from 5% to 2-3%. In spite of these facts, 18% of Wellington's population used public transport and 9% walked for their work trips in 2013. This is due to the presence of a high proportion of employment in the compact city centre[345] and a relatively better quality integrated rail and bus-based public transport system.[346] In contrast, only 15% of total jobs in Auckland are accessible by reasonable (45 minutes) public transport travel.[347] With increasing population and employment density,[348] improving access to trunk public

[340] http://www.energyawards.co.nz/finalist/2015/community-initiative-of-the-year/mighty-river-power-and-tauhara-north-no2-trust
[341] http://www.solarcity.co.nz/residential/product/solar-care/
[342] http://driveelectric.org.nz/
[343] Barry Barton and Peter Schütte, "Electric Vehicle Policy: New Zealand in Comparative Context", Research Report, Centre for Environmental, Resources and Energy Law, University of Waikato, November 2015, http://www.waikato.ac.nz/__data/assets/pdf_file/0007/278080/Electric-Vehicle-Policy-New-Zealand-in-a-Comparative-Context.pdf
[344] Ministry of Transport (2015). 25 Years of New Zealand Travel: New Zealand Household Travel 1989-2014. Wellington: MoT. http://www.transport.govt.nz/assets/Uploads/Research/Documents/25yrs-of-how-NZers-Travel.pdf (accessed June 2016).
[345] Laird, P., Newman, P., Bachels, M. and Kenworthy, J. (2001). Back on track: Rethinking transport policy in Australia and New Zealand. Sydney: UNSW Press.
[346] Mees, P, J Stone, M Imran and G Nielsen (2010) Public transport network planning: a guide to best practice in NZ cities. NZ Transport Agency research report 396. 72pp
[347] Ministry of Transport (2016). Auckland Transport Alignment Project: Foundation Report. Available at http://www.transport.govt.nz/assets/Uploads/Land/Documents/Auckland-Transport-Alignment-Project-Foundation-Report.pdf (accessed June 2016)
[348] Auckland Council (2013). The Auckland Plan. Available at http://theplan.theaucklandplan.govt.nz/ (accessed June 2016).

transport routes (busway and rail network) through a new feeder network,[349] building a cycle network and providing adequate safe cycle-parking facilities at bus stops and train stations[350] will improve general access and use of sustainable transport in Auckland.

Sustainable school travel. Sustainable transport has a fundamental role in travel to school, and facilitates economic and social inclusion[351] and well-being among youth, the elderly, ethnic minorities and Māori and Pasifika populations. The share of travel to primary and secondary school by walking and cycling has dropped since the late 1980s. Cycling has seen the most dramatic decline. In the late 1980s, "12% of primary school journeys and 19% of secondary school journeys were by bike, but by 2010–2014 this had fallen to 2% and 3% respectively".[352] On the other hand, public transport's share of journeys to secondary school remained static at nearly 30% between 1989 and 2014. To promote active transport to school, it is important to develop genuinely safe and attractive walking and cycling networks by implementing lower speeds limits around schools.[353]

Youth travel. In an era of a declining number of licensed drivers among youth in New Zealand,[354] sustainable transport can play a greater role in providing youth with independent access to their friendship groups, sporting and work activities. Making sustainable transport pleasant,[355] safe, cost-effective, easy and convenient[356,357] will decrease the number of transport related deaths and injuries, energy consumption, carbon emissions, and will improve the physical and mental health[358] of youth in New Zealand cities.

Elderly population travel. The population of New Zealand's cities and regions is ageing rapidly. Most of the elderly population live in affordable and low-density areas in small towns and middle to outer suburbs in metropolitan cities. These areas are less well served by efficient public transport[359] and therefore elderly people are more likely to maintain 'forced car ownership'.[360] The government Super-Gold Card scheme provides free off-peak travel on public transport[361] and the Total Mobility Scheme subsidises taxi services for older people. There is an

[349] Auckland Transport new public transport network project https://at.govt.nz/projects-roadworks/new-public-transport-network/ (accessed June 2016)
[350] Auckland Urban Cycleways Programme https://www.nzta.govt.nz/walking-cycling-and-public-transport/cycling/for-people-involved-in-cycling-programmes-and-projects/urban-cycleways-programme/auckland-urban-cycleways-programme/ (accessed June 2016)
[351] Rose, E., Witten, K., McCreanor, T., (2009). Transport related social exclusion in New Zealand: evidence and challenges. Kōtuitui: N. Z. J. Soc. Sci. Online 4, 191–203
[352] Ministry of Transport (2015). 25 Years of New Zealand Travel: New Zealand Household Travel 1989-2014. Wellington: MoT. p.31.
[353] Mackie, H. 2009. 'I want to ride my bike': overcoming barriers to cycling to intermediate schools. NZ Transport Agency research report no. 380. 94pp.
[354] Ministry of Transport (2015). 25 Years of New Zealand Travel: New Zealand Household Travel 1989-2014. Wellington: MoT. p.6.
[355] Bean, C., Kearns, R., and Collins, D. (2008). Exploring social mobilities: Narratives of walking and driving in Auckland, New Zealand. Urban Studies, 45(13), 2829-2848.
[356] Ward, A., Baggett, T., Orsini, A., Angelo, J. and Weiss, H. (2014). Participatory photography gives voice to young non-drivers in New Zealand. Health Promotion International. 1-10.
[357] Hopkins, D. and Stephenson, J. (2014). Generation Y mobilities through the lens of energy cultures: a preliminary exploration of mobility cultures. Journal of Transport Geography, 28, 88-91.
[358] Ward, A, Freeman, Cl. And McGee, R. (2015). The influence of transport on well-being among teenagers: A photovoice project in New Zealand. Journal of Transport & Health, 2. 414-422.
[359] The Royal Commission on Auckland Governance (2008). Auckland Governance, Volume 4: Research papers. Wellington.
[360] Cheyne, C. and Imran, M. (2010) Attitudes and behaviour in relation to public transport in New -metropolitan regions. NZ Transport Agency research report 419. 112pp.
[361] Ministry of Transport (undated). SuperGold Card. Wellington: MoT. http://www.transport.govt.nz/land/supergoldcardtransportfunding/ (accessed March 2016).

opportunity to use the Total Mobility Scheme as a first and last mile feeder to trunk public transport services (busway and trains) to access health care and social trips.

Effects of immigration. New Zealand cities have become increasingly diverse: 40% of Auckland's residents were born overseas.[362] The immigrant population is reliant on part-time jobs and must travel to and from work at off-peak times. On average 8% of journeys in metropolitan areas of Auckland are made using public transport. However, in suburbs with large populations from ethnic minorities that proportion is doubled.[363] This trend can provide an opportunity to promote sustainable transport in New Zealand cities.

Indigenous input. According to the 2013 census, most Māori in New Zealand live in urban areas. At the central government level, the New Zealand Transport Agency (NZTA) acknowledges the role of Māori in transport and aims to "extend (… and build) the opportunity for Māori to participate in (transport) decision-making" and "consult with Māori wherever possible on activities that are likely to affect them or their interests".[364] Due to this commitment, regional transport committees have a member representing 'cultural interests', likely to be primarily Māori. Māori have raised issues related to safety, affordability, and accessing culturally relevant activities and sites in Auckland. Providing an indigenous voice in making transport policy will make it more likely that indigenous health and wellbeing is prioritised in transport planning.[365]

6.6 Chapter Summary and Issues that could be addressed by the New Urban Agenda

Chapter 6 addresses the core issues of provision of and access to adequate housing and the associated services including water, sanitation, energy and transport.

As a developed country, the way in which these issues impact on New Zealanders is different to those of other countries in the developing south. Slums are defined as heavily populated areas characterised by sub-standard housing, squalor, lack of services and security of tenure and these are not a feature of New Zealand where the issues relate to the spectrum of housing deprivation impacting on specific groups of people.

40,000 people, three times the population of Queenstown experience some form of housing deprivation ranging from homelessness to housing deemed inadequate due to overcrowding, dampness or lack of adequate heating. This 0.8 per cent of the population is not equally dispersed throughout the country and there are concentrations particularly in South Auckland and post-earthquake Christchurch.

[362] Auckland Council (n.d.). Auckland counts: Auckland's census data. Available at http://www.censusauckland.co.nz/ (accessed June 2016).
[363] Spoonly, P., Imran, M., Jackson, N., Peace, R. and Cain, T. (2016). Transport demand implications of changing population age and ethnic diversity in Auckland. A thought piece, Report prepared for Auckland Transport.
[364] NZTA (n.d). Working with Maori. Available at https://www.nzta.govt.nz/about-us/about-the-nz-transport-agency/working-with-communities/ (accessed March 2016).
[365] Raerino, K., Macmillan, Alex K., & Jones, Rhys G. (2013). Indigenous Māori perspectives on urban transport patterns linked to health and wellbeing. Health and Place, 23, 54-62.

The social housing sector makes up 5 per cent of the 1.8 million dwellings in New Zealand, the majority of which is provided by the state owned Housing NZ Corporation. Other providers of social housing include local councils and trusts. The key issues in this sector relate to the condition of the stock as well as location and size relative to demand.

The issues facing New Zealand include: housing supply both in the owner occupied and rental sectors, housing costs, housing performance and the impact on health and well-being. Housing affordability both in the owner occupied and rental sectors correlates with overcrowding. The quality of design and construction is an ongoing challenge. Between 42,000 and 89,000 dwellings have also been affected by what has become known as the leaky homes crisis, the legacy of which is still evident as thousands of homes throughout the country still await renovation.[366]

Housing unaffordability is evident in Auckland, and other hotspots including Queenstown and Christchurch. This is an outcome of supply of housing relative to demographic demand as well availability of finance and regular employment. An associated issue is energy poverty – and the ability to heat homes adequately.

Perhaps what will surprise those outside New Zealand is that such a large proportion of the housing stock is deemed poor when it comes to thermal performance. Up to half of the housing stock is reported as cold or damp and the correlation with health, in particular respiratory illnesses, is evident in the health statistics. The problem is exacerbated by the cost of residential electricity.

Steps have been taken by government at local and national level to undertake house condition surveys, and housing plans. What is not evident to the public is a tangible improvement in housing supply and conditions or a sense that the current demand will be met in a realistic timeframe.

To make a house work, it also needs water and sanitation and it needs to be accessible. Four in 5 households in New Zealand have water supply which meets water quality standards although there is real concern that extreme weather events and drought associated with climate change will create challenges. New Zealand is facing the need for major infrastructure renewal.

Transport provides mobility and access to jobs, education and other facilities. Without appropriate access to transport, communities will be isolated from their basic needs. Contrast Wellington where there is a concentration of jobs in the compact core and Auckland where it is estimated that only 15 per cent of jobs are accessible by public transport.

The chapter demonstrates that New Zealand is experiencing a series of interrelated issues which impact on the new urban agenda. What is called for more than anything else is a much better integration of policies for the provision of housing and services.

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[366] *Laxon, Andrew (27 February 2010). "It's not if – it's when for our dripping time bombs". The New Zealand Herald. Retrieved 3 March 2010.*

Paragraph 35-49 of the Revised Zero Draft of the New Urban Agenda commits signatories to recognise the right to adequate housing for all and the need to integrate housing policies and approaches across all sectors in particular employment, education, healthcare and social integration.

Chapter 7: Indicators

% Population living in slums/sub-standard homes: Overcrowded	10% (20% Māori, 38% Pacific Islander, 18% Asian, 4 European) in 2013 Manukau region at 22%, Auckland at 16%, Tairawhiti at 15% Source: Ministry of Health Infections Diseases Attributable to Overcrowding in New Zealand: A Systematic Review and Burden of Disease Estimate[367] 10% (23% Māori and 43% Pacific Islander) in 2006 Ranging from Manukau to Auckland at 25%, to Selwyn District at 2.8% Source: Statistics New Zealand Subnational Crowding Tables 1991-2006[368]
% of Dwellings or houses with: Little or no wall insulation Dampness and mould issues	80% of rental homes 45% of owner-occupied homes in 2010 75% rental, 50% in 2010 owner-occupied Source: BRANZ 2010 Housing Condition Survey[369]
% of Population Severely Housing Deprived (Homeless)	1% in 2013 0.76% in 2001 0.83% (1 in 120) in 2006; out of these, 65% shared in overcrowded permanent dwellings, 18% lived in commercial accommodation, 15% lived on the street or improved mobile dwellings, 2% lived in emergency accommodation. 75% of housing deprived in main urban centres. Source: Amore et. Al. (2013)[370]

[367] See report at: http://www.health.govt.nz/publication/infectious-diseases-attributable-household-crowding-new-zealand-systematic-review-and-burden-disease

[368] See report at: http://www.stats.govt.nz/browse_for_stats/people_and_communities/housing/subnational-crowding-tables-1991-2006.aspx
Statistics New Zealand uses the Canadian National Occupancy Standard to measure over-crowding.
This standard states:

1. there should be no more than two people per bedroom
2. parents or couples share a room
3. children under five years, either of same or opposite sex, may reasonably share a bedroom
4. children under 18 years of the same sex may reasonably share a bedroom
5. a child aged five to 17 years should not share a bedroom with one under five of the opposite sex
6. single adults 18 years and over and any unpaired children require a separate bedroom.

[369] See report at: http://www.branz.co.nz/cms_show_download.php?id=53af2b0c2e5ca5169a0176996bba7ee88de082c0
The Branz figures are based on a sample survey of rental and owner occupied properties.

[370] Amore, K., Viggers, H., Baker, M., Howden-Chapman, P. (2013) Severe Housing Deprivation: The problem and its measurement, Wellington: University of Otago.

% of Population Residing in Urban Areas with Access to Safe Drinking Water Achievement against water quality standards (safe drinking water)	79% in 2013-2014 76.9% in 2012-2013 87% in 2011-2012 Source: Ministry of Health Annual Reports on Drinking-Water Quality[371]
Population used piped drinking water supply on premises	100% Source: UNICEF Country Statistics: New Zealand[372]
Christchurch Earthquake repair	98% water pipes repaired/replaced as at July 2016 Source: SCIRT Progress Statistics[373]
% of Population Residing in Urban Areas with Access to Adequate Sanitation	No specific data
Christchurch Earthquake repair	86% pipes repaired/replaced as at July 2016 Source: SCIRT Progress Statistics[356]
% of Population Residing in Urban Areas with Access to Regular Waste Collection	No specific data
% of Population Residing in Urban Areas with Access to Clean Domestic Energy	No specific data on access to clean domestic energy

'The methodology identifies severely housing deprived people based on the type of housing they are living in on census night, their access to other accommodation, and their socio-economic position. The filters used to identify people lacking access to minimally adequate housing are: having no other place to live; low income; and, for temporary residents in permanent private dwellings, living in a severely crowded dwelling. In this approach, severely housing deprived people have low incomes by definition, and not being able to afford housing is assumed to be a large part of the reason for living in severely inadequate housing.' Page 53)

[371] See the report at: http://www.health.govt.nz/publication/annual-report-drinking-water-quality-2014-2015
The Annual Report on Drinking-Water Quality 2013/14 describes the drinking-water quality for all registered drinking-water supplies that served populations of more than 100 people, and progress towards meeting the requirements of the Health Act 1956, from 01 July 2013 to 30 June 2014. This report covers 659 registered networked drinking-water zones supplying water to 3,829,000 people in the 12-month reporting period of 1 July 2013 to 30 June 2014. Each zone served 101 people or more.

[372] http://data.unicef.org/countries/NZL.html

[373] http://strongerchristchurch.govt.nz/more-progress

Renewable energy – total Renewable energy for electricity	38% 75% Source: Ministry of Business Innovation and Employment Energy Statistics[374]
% of Population Residing in Urban Areas with Access to Public Transport	No specific data[375]
% Level of Effective Decentralization for Sustainable Urban Development Measured by: i % of Policies and Legislation Participated from 1996 to the Present	No specific data
ii % Share of both Income and Expenditure Allocated to Local and Regional Governments from the National Budget	37 million (i.e. 0.47%) allocated in 2015 Budget Source: New Zealand Government Budget 2015[376] Councils' operating revenue transferred from central government in 1985 – 18% Councils' operating revenue transferred from central government in 2014 – 13% Source: Local Government Funding Review[377]
iii % Share of Local Authorities' Expenditure Financed From Local Revenue	No specific data

[374] http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/statistics/renewables

[375] The New Zealand Household Travel Survey is an ongoing survey of household travel conducted for the Ministry of Transport. Each year, people in 4,6001 households throughout New Zealand were invited to participate in the survey by recording all their travel over a two-day period. Each person in the household was then interviewed about their travel and was also asked about their alcohol consumption and other travel-related information.
Public transport is defined as 'Passenger in local bus, train or ferry. Distances are currently only available for bus and train trips. Local bus, train trips have been defined to be 60 km or less, local ferry 1hr or less. Bus/train/ferry trips of longer than this distance/duration have been coded to 'other household travel'.

[376] http://www.treasury.govt.nz/budget/2015/execsumm/b15-execsumm.pdf

[377] See report at: http://www.lgnz.co.nz/assets/Uploads/Our-work/Local-Government-Funding-Review.pdf (Page 23)

% Share of City, Regional and National Authorities that have Implemented Urban Policies Supportive of Local Economic Development and the Creation of Decent Jobs and Livelihoods	No specific data
% Share of City, Regional and National Authorities that have Adopted or Implemented Urban Safety and Security Policies and Strategies	No specific data
% Share of City, Regional and National Authorities that have Implemented Plans and Designs for Sustainable and Resilient Cities that are Inclusive and Respond to Urban Population Growth Adequately	No specific data
Share of National Gross Domestic Product (GDP) that is produced in Urban Areas	In 2013, 35.3% in Auckland 13.5% in Wellington 13.2% in Christchurch Source: Statistics New Zealand Commuting Patterns in Auckland: Trends from the Census of Population and Dwellings 2006-2013[378] In 2015, 36.6% in Auckland 13.5% in Wellington 13.6% in Christchurch Source: Statistics New Zealand Regional Gross Domestic Product: Year ended March 2015[379]

[378] http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/commuting-patterns-auckland/introduction.aspx
[379]http://www.stats.govt.nz/browse_for_stats/economic_indicators/NationalAccounts/RegionalGDP_HOTPYeMar15.aspx

An Afterword

New Zealand's New Urban Agenda

The following is the editorial team's highlighting of particular aspects of this report.

Urbanisation should be managed on a regional and national scale and be highly integrated and multi-disciplinary in nature.

Urbanisation management is overly city-focused – for example, on housing, employment and transport – whereas arguably it should be better integrated with issues such as:

- Erosion of services in smaller rural centres;
- A consequent focus on main centres, despite the desirability of maintaining smaller-centre infrastructure for longer-term demographic and immigration settlement trends; this includes considering satellite towns, with attendant transport and other infrastructure provision challenges;
- High costs of land and dwellings disproportionately affecting the young, Māori and Pasifika people, as well as spilling over to areas around major urban centres; and
- A loss of younger rural people to towns and cities and the consequent reliance on international migrant agricultural labourers.

A new urban agenda should encourage the growth of niche industries in smaller centres, creating a more post-urban approach.

While New Zealand does not suffer from slums as commonly understood internationally, relative deprivation still results in extremely poor housing conditions for those least able to avoid those conditions. There remains a chronic under-supply of housing, and at the lower end of the market, rental accommodation is in poor condition. This exacerbates such things as chronic health complaints, leading in turn to more sickness, and contributing to lower educational achievement and work options.

Demographic trends indicate dangers and opportunities.

There are challenges and opportunities in managing an ageing population while also addressing Māori and Pasifika, low income, housing accessibility, health and education needs. Children's rights, and needs for protection, are increasingly recognised but action does not match the rhetoric.

New Zealand benefits from the increasing ethnic and cultural diversification of Auckland, now one of the world's most diverse cities. A challenge lies in also meeting the special cultural and economic development needs of urban Māori. The enactment of the Treaty of Waitangi Act 1975 gave official recognition to the Treaty as part of New Zealand law, and set in place a unique process for Māori to make claims to the Waitangi Tribunal in respect of grievances arising from actions of the

Crown and Parliament since 1840. Urban-based Māori may not be benefiting as much as they should from consequent claims.

On the other hand, indigenous representation and participation in decision-making is well established. The proportion of state funding directed towards indigenous persons is significant, reflecting urban demographic issues such as housing and unemployment needs, minimum income, child poverty and health needs.

Complex gender issues are partially but not sufficiently recognised in policies and programmes.

The growing recognition of the non-binary nature of sexual identity challenges planning systems predicated on simpler definitions. This leads to difficulties for some groups in gaining a voice in decision-making, with a resulting compromise on the provision of resources and facilities. Despite significant progress, women do not have adequate access to planning systems, resulting in urban environments that are not fully gender equal. This is a particular impost on female Māori and Pasifika.

The influence of information technology is under-addressed.

The rapid uptake of on-line information creation, storage and retrieval, in terms of both the benefits and challenges, needs a more comprehensive approach. This will also in part be a generational issue, as urban society interaction is mediated increasingly by technology.

The roles of local versus central government remains unresolved.

Tensions exist between central and local government influence over the direction of urban development, manifested by:

- Interpretations of the need to manage climate change adaptation while contributing to reducing the risks of it happening in the first place. Current arrangements restrict local government's ability to directly address ways to reduce emissions, while the central government-managed emissions trading scheme is failing to reduce increasing urban emissions, particularly from transport. Meanwhile local government is required to address the impacts of climate change, but has limited resourcing and guidance as to how this can be done practically and legally;
- Deciding the balance between local control over land use versus central government's economic and social strategies. In effect, central government controls financial levers that may compromise local planning desires, while on the other hand multiple interpretations of economic, social or ecological outcomes across different councils can result in poor goal setting and achievement;
- Debate over the relative weight to be given to biophysical versus economic, social and cultural outcomes
- Claims that opening up peri-urban land for development lacks full infrastructure and environmental costing, integrated with what the best social and economic outcomes are associated with urban housing intensification as opposed to greenfield development.

While there are several examples of central and local government working together on issues that have had some success in aspects of housing, transport, employment and health, problems still arise from contradictory policy. An example is the assessment of options to increase housing stock in Auckland. The atmospheric carbon emissions implications of the options are not embedded in the process, effectively separating the need for affordable and accessible housing from the need to achieve emissions reductions targets.

There is a need to develop a more comprehensive shared vision for future urban development across all levels of governance. Barriers to this include agreeing on what are the causes of such things as limited housing supply and affordability, what constitutes a sustainable city, and what should be the extent of the influence of communities on decision-making. Other trends to be questioned include the extent of political control over infrastructure management, such as that exercised by many local governments over water and roads.

Applying the Resource Management Act: dissatisfying and confusing.

An over-reliance on the technical aspects of assessing environmental externalities to guide decision-making avoids grappling with legitimate social and economic challenges. At the same time biophysical values have been insufficiently protected, with councils reacting to ecological decline rather than planning how to avoid it. This is being addressed in a limited way by the creation of better plans backed by national policy statements. Overall the outcome has been, in some particular instances, an unjustifiable impost on development resulting from attempts to control marginal issues, while failing to halt net ecological degradation of such things as water quality and native biodiversity.

Climate change risk reduction poorly integrated into urban planning.

Further to the observation above, strategic planning horizons attached to transport and other infrastructure fail to clearly indicate the atmospheric greenhouse gas emissions implications of the relevant strategies and plans put in place to achieve various goals. Failure to audit current and future building stock for embedded and operational emissions overlaps with the current building codes which have relatively limited energy efficiency and self-sufficiency standards.

While emissions auditing is a very complex and contested exercise, it is one which needs to be flagged as part of a new urban agenda. It dovetails with the need for more effective public transport and more explicit and in-depth discussions about how increasing energy demand in cities such as Auckland will be met in the future. Central and local government have invested heavily in public transport over recent years, but as this is partly to compensate for chronic underinvestment in recent decades, more investment is needed to keep up with rapid population growth. The danger is that failure to get ahead of that curve will see further urban development predicated on private vehicle access to roads, especially in Auckland.

New Urban Agenda not new.

As noted in Chapter 4 New Zealand has previously pursued model communities and balanced public welfare systems for over 50 years. A focus on a New Urban Agenda could revisit these long-standing objectives. A proposed national policy statement on urban development in 2016 has the potential to support an agenda for achieving better outcomes for all members of society.

Gaps in the report

The editors are conscious that, having based this report on the UN template, certain urban trends have not received the attention merited. These are noted below.

Urban Ecology

Urban systems contain ecosystems, and can be studied and analysed as ecological systems themselves. Urban systems can and do contribute to improving biodiversity in terms of enhancing and protecting native diversity. Cities and towns also benefit from ecosystem services, which in turn rely on healthy biological systems. Such services provide among other things clean water and air, protect coastal environments, provide physical and mental health benefits, and can contribute to reducing the likelihood of climate change while adapting to its impacts. This is a major field of research that is a vital part of ensuring urban sustainability.

Equally, analysing cities as ecosystems relates to the concepts of network analysis and evolution. Ecosystems and their components adapt and change according to internal and external pressures, as do urban systems. This includes the human and non-human components. Such social-ecological systems underpin evolving concepts of resilience,[380] and contribute to identifying ways to improve urban sustainability.

Both these areas are a major part of the future of urban studies.

Urban ecological footprints

Urban systems rely on importing a range of materials and energy in order to operate. This can be captured by the idea of an ecological footprint.[381] Per capita consumption of goods and services imposes costs extending beyond the physical boundary of a city. Addressing local and global ecological degradation relating to air, water, non-renewable resources, and biodiversity, requires not just reducing the impact of city development and operations, but identifying ways that urbanization can materially benefit ecosystems.[382] This includes enhancing within-city ecosystems, as noted in the section above, as well as enhancing ecosystems beyond urban boundaries, nationally and internationally.

[380] See for example Folke C., et al., 2010. Resilience thinking: integrating resilience, adaptability and transformability. Ecology and Society. 15(4), 20

[381] Wackernagel, M & Rees, W. E. 1998 Our ecological footprint: reducing human impact on the earth New Society Publishers, B.C. Canada.

[382] Birkeland, J. 2008 Positive Development: from vicious circles to virtuous cycles through built environment design Earthscan (now Routledge), London.

Looking ahead

The role of Researchers and Academics

As part of the process of preparing for Habitat III, a series of constituent groups were established in April 2015, to enable interest groups to submit their ideas on the New Urban Agenda. These make up what is called the General Assembly of Partners.[383] The Research and Academic Partner Constituent Group (RAPCG) of the General Assembly of Partners is one such groups.

Universities form part of the RAPCG and have a particular role to play as they will be preparing the future generations of professionals in planning, engineering, architecture and landscape architecture as well as public policy, finance, management, law and governance. Universities will be contributing to the development of knowledge in these fields and to addressing the SDGs. Many professional institutes are in the process of embarking on or reviewing their educational guidelines. Universities, institutes, employers and the community at large need to work together to ensure that the next generation of professionals are prepared for the challenges ahead. In February 2016, a number of Universities in Aotearoa New Zealand became members of the Sustainable Development Solutions Network, further strengthening their commitment to delivering sustainable development.[384,385]

By the time the next Habitat IV conference is held in 2036, a child who is about to start school now will be deciding on their future and what role they want to play. Students graduating this year will be in their early 40s possibly with their own children in their teens. Many of the authors of this report will be in the 70s and 80s. Wherever we are living; whatever we are doing we will have contributed one way or another to the future ahead. The editors wish to sincerely thank all those who contributed to this report.

[383] UNHabitat (2015) General Assembly of Partners, April 13th, http://unhabitat.org/wp-content/uploads/2015/01/GAP-Background.pdf
[384] SDSN http://unsdsn.org/
[385] McCutchen (2016) University strengthens its commitment to sustainable development, February 12th https://www.auckland.ac.nz/en/about/the-university/how-university-works/sustainability-and-environment/se-whats-new_1/se-whats-new-2016/university-strengthens-its-sustainable-development-commitment.html

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